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SYMPOSIUM ON HOSPITAL INSURANCE

THE IMPACT OF HOSPITAL INSURANCE ON MEDICAL PRACTICE IN ALBERTA

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THIS ARTICLE was written after a survey of impressions from medical practitioners throughout our province, combined with a spot check in various hospitals for some figures which were then expressed as percentages. In acquiring the impressions from medical practitioners, I was careful to get a profile from the province at large. Communications were established with men from the two largest cities in the province as well as from three cities with populations of between 20,000 and 50,000, with men working in smaller hospitals in densely populated rural areas where the hospitals are well developed and adequately staffed, and finally with men who practise in more remote hospitals and, in one instance, alone.

ALBERTA HOSPITALIZATION SCHEME

The first step towards hospital insurance in this province was the establishment of free public ward service for all maternity cases. This proved to be very popular with the public and on the whole with the profession, because all maternity cases are hospitalized in the province with the exception of a very small percentage of the Indian population and a rare patient in the remote areas. In 1950 the province instituted the so-called "dollar-a-day plan". The patient is charged \$1.00 per day for each public ward bed, the balance being taken up by the municipality through their local municipal hospital district and the provincial government. This plan was also well accepted by the public, although the various municipalities and cities were loath to come into the scheme because they felt the provincial government's contribution was insufficient. In spite of some municipal resistance, within two years the entire province was covered by this plan.

The public also felt that this plan was inadequate. Many patients had a heavy hospital bill when discharged from hospital because of the high cost of medicines, operating room costs, diagnostic

x-ray services, and pathological laboratory expense. In 1955 these extra charges were absorbed by a flat \$1.00 per day charge to the patient, making a total of a \$2.00 charge per public ward patient for hospitalization, medicines, operating room charges and diagnostic tests whether pathological or radiological. When this \$2.00-a-day plan was instituted, hospital utilization increased very materially. Patients realized that it was much less expensive to be admitted to hospital for diagnostic services than to have these services rendered to them on a private basis. My correspondents felt that the waiting lists have become longer in the last two years and that the pressure from the public for admission to hospital for investigation services has greatly increased. This is a rather significant factor in attempting to forecast the result of the Hospitalization Act, which came into force in this province on April 1 of this year.

BED DISTRIBUTION AND HOSPITAL UTILIZATION

We find that there are 7.5 hospital beds per 1000 of population in the province of Alberta. There is, however, a very marked discrepancy in the distribution of beds. It has a maximum of 7.8 per 1000 in Edmonton and 7.88 in Lethbridge, with an average of 7.5 throughout the whole province, and in Calgary it is 4.5 per 1000. The Edmonton area has a high concentration of specialists in a university centre, with a resulting increase in hospital utilization for diagnostic services and also the requirement of supplying consulting services for a large sparsely populated area to the north of that city with infrequent outlying hospitals. The hospital grants for new beds in this city have been sufficient to bring their ratio of beds up to the high point of 7.8 per 1000. We find that utilization varies from 72% in the university hospital to 90% in the civic hospital, indicating that the bed situation in this city is pretty well looked after.

Calgary, on the other hand, has a zone or a ring of well-equipped, adequately staffed smaller hospitals of from 50 to 100 beds completely encircling it. These hospitals are maintained by local municipal hospital districts, and the \$1.00 a day is applicable only if the patient is hospitalized in

his own area unless he is referred by the local doctor to a consultant in the larger centre. Now the new Hospitalization Act has come into force, the limitation to hospital districts has been abolished and one can anticipate that the 4.5 figure in the City of Calgary will become completely inadequate. At the present time, the hospital utilization in this city runs to 90% of capacity throughout the greater part of the year. In the civic hospital at the present time there is a waiting list of approximately 1500 patients. It was my experience in September 1957 to put a patient on the admission list for cholecystectomy and have her notified on January 3 that the bed was now ready for her occupancy. It is anticipated that the new hospital scheme will throw a still greater load on our very limited hospital accommodation. At the present time admissions for diagnostic services vary in the two major hospitals from 8 to 22%. It is expected that the pressure of public demand for diagnostic services will force the government to institute this part of the program at an early date as an outpatient service because of the impossibility of admission for investigations.

When hospital utilization across the province was reviewed, one isolated instance was found of a hospital with utilization rated at 50%, and one report was received from an area with 150 beds to the effect that beds were adequate, but on the whole the utilization was reported at from 87% to 90%, with the one exception recently quoted by our Minister of Health as 72% of occupancy in the university hospital. It was the general impression that hospital utilization had increased more in the past two years with the institution of the ancillary services in the so-called \$2.00 a day plan. I feel that this increase in utilization is caused by two main factors—in the first instance, the public demand for admission for investigation purposes, and in the second instance the encouragement of this type of admission by a large number of physicians.

PATTERN OF MEDICAL PRACTICE

Since the advent of the hospitalization scheme in this province, general practitioners in the rural areas all state that house calls have become only a small percentage of their practice. Some state that all of their practice is either in hospital, the outpatient department of the hospital, or the office. This is particularly true in small towns with adequate hospital facilities. I might say that this pattern of practice is encouraged by the doctors. The general impression gained by our observers was that, with the institution of free hospitalization, this tendency to centralization in hospital or doctor's office will increase still more. It was also a commonly expressed opinion that the government's plan of instituting a hospitalization service first, followed much later by diagnostic services, would prove inadequate to the public. It was felt that public demand would precipitate early insti-

tution of diagnostic services both in the hospital and in the outpatient departments of hospitals.

BILL 320 AND BILL 101

The drafts of the rules and regulations at both the federal and provincial level have been studied. We have been advised by Ottawa representatives that it is up to the province to define "outpatient services" in hospital or "other facilities". The legislative committee of the Alberta division is in the stage of negotiation with our government to broaden the definition of the phrase "other facilities" to include diagnostic services which are efficiently maintained at the present time outside our hospitals. We feel that this is extremely important to the future practice of medicine.

The same legislative committee is also making very strong representation on the part of the College of Physicians and Surgeons of this province to the government to maintain the radiologist and pathologist on a professional basis rather than as employees of the hospital. Should the professional services of these specialists be part of the per diem cost for government purposes, I am afraid that they will eventually become salaried employees of the hospital. Our Council of the College have expressed themselves strongly through the legislative committee to our provincial government on this vital matter, and hope to preserve the professional status of these vital diagnostic specialties.

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RÉSUMÉ

La formule d'assurance-hospitalisation a pris naissance en Alberta en 1950 lorsque le gouvernement élabora le système connu sous le nom de "Plan à \$1.00". Ce système permettait à tous les cas de maternité d'obtenir un lit d'hôpital pour la somme de \$1.00, la balance étant soldée par le gouvernement. Les municipalités se firent tirer l'oreille au début sous prétexte que la part fournie par la province était trop petite en comparaison de la leur. Le système cependant obtint une telle popularité qu'en l'espace de deux ans il s'était étendu à toute la province. Restaient encore les médicaments, la salle d'opération et les radiographies diagnostiques en plus des frais de laboratoire à payer. En 1955 grâce à un autre arrangement toutes ces dépenses furent radiées par un second versement de \$1.00 permettant aux cas de maternité de se tirer de tous ces frais à raison de \$2.00 par jour. L'emploi des hôpitaux augmenta sensiblement dès lors.

En dépit d'une moyenne de 7.5 lits d'hôpitaux par 1000 habitants, certaines régions de la province sont encore mal desservies à cet égard. La répartition des lits s'étend de 4.5 par 1000 habitants à Calgary à 7.88 à Lethbridge. Sauf pour l'hôpital universitaire dont l'utilisation n'est qu'à 72%, la majorité des hôpitaux civiques sont utilisés à 90%. Les listes d'attente pour admission électorale sont très longues. Les médecins se rendent compte que les visites à domicile ont pratiquement disparu et que leur travail se fait en grande partie à leur bureau ou dans les hôpitaux.

En ce qui concerne les récentes lois fédérales et provinciales sur l'assurance-hospitalisation, l'interprétation du terme "autres facilités" est laissée à la discrétion des provinces. Le comité législatif de la division d'Alberta de l'A.M.C. est en pourparlers avec le gouvernement provincial afin d'inclure dans la loi les services diagnostiques qui n'appartiennent pas aux hôpitaux mais qui néanmoins fonctionnent efficacement. Ce même comité prend énergiquement la part du Collège des médecins et chirurgiens de cette province vis-à-vis du gouvernement afin de conserver aux radiologistes et aux pathologistes leur statut professionnel plutôt que d'en faire des employés d'hôpitaux.

PROBLEMS ARISING THROUGH OPERATION OF THE SASKATCHEWAN HOSPITAL SERVICES PLAN

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IN ORDER to understand problems relating to the Hospitalization Plan, it will be necessary to sketch briefly a few details of the plan itself.

The Saskatchewan Hospital Services Plan¹ was inaugurated in January 1947, and was the first compulsory hospital plan on the North American continent. It was therefore a pioneer in this field and, while designed primarily to remove the financial deterrent to necessary hospital care, it also assures Saskatchewan public general hospitals of regular payments and adequate revenue, making it possible for them to provide essential services.

ADMINISTRATION

The Plan is operated under authority of the Saskatchewan Hospitalization Act. Before April 1, 1950, it was administered by the Health Services Planning Commission. Subsequently it has functioned as a division of the Department of Public Health.

COVERAGE

Participation is required of most persons who have resided in the province for a period of six months. Persons who are assured of complete hospital care through federal or other health programs of the province, however, are not required to participate. When beneficiaries leave the province they are entitled to coverage by the Plan until the end of the year in which they depart. The Plan's covered population has represented more than 92% of the total provincial population each year since it commenced.

BENEFITS

Subject only to medical necessity for the hospital care involved, the Plan pays on behalf of its beneficiaries for public ward accommodation (including meals, special diets and general nursing care), the use of operating and case rooms, surgical dressings and casts, x-ray treatments, anaesthetic drugs and equipment, physiotherapy and most drugs in general use. Effective January 1, 1956, federal-grant assistance was obtained to cover payment for tissue pathology services provided by Saskatchewan hospitals on an outpatient basis. Since January 1, 1957, the per diem limit has been increased to \$10.

HOSPITALIZATION TAX

The tax for 1957 was set at \$20 for self-supporting persons, while the rate for dependent children

remained at \$5. The maximum family tax payable was increased to \$45. Full tax payment must be made by November 30, or if partial payment is made, the balance is payable not later than May 31 of the tax year. Penalties are provided for delay in payments.

METHOD OF PAYMENT TO HOSPITALS

The Plan provides for fixed payments on a semi-monthly basis, based on the estimated cost of efficient operation in individual hospitals. Additional payments at per diem rates are provided for when accounts are received for individual patients. This provides hospitals with income to meet fixed expenses during periods of relatively low occupancy. A small portion of hospital bills covered by the Plan is incurred by beneficiaries in approved nursing homes and in institutions operated by the federal and provincial governments and the Saskatchewan Anti-Tuberculosis League.

Generally speaking, the Saskatchewan Hospital Services Plan has been welcomed by the people of the province. Whatever problems have arisen in connection with its operation have not to date seriously detracted from the benefits enjoyed. The Plan operates without "deterrent" or "utilization contribution", and the hospitals are provided with essential costs of operation and depreciation. Very little provision is made to assist in capital costs of construction and expansion, with the exception of the federal grants of \$1000 per active bed and \$1500 per convalescent bed. These grants have been matched by the provincial government. Recently the federal active-bed grant was raised to \$2000.

A brief discussion of problems related to operation of the Plan is all that space permits herein, but attention should be drawn also to potential problems which may ensue in the future.

ADMINISTRATION

The Plan is administered under the Department of Public Health and by personnel employed directly by the government. The Saskatchewan Hospital Association and the medical profession hold purely an advisory role in this category. The question of representation by interested groups in administrative bodies controlling health services has been the subject of much controversy and wide concern. It is difficult to separate "administration" and "planning" in so far as any administrative body must plan for expansion and maintenance or improvement of standards and services. Purely advisory function by groups intimately involved in any plan of health services would seem inadequate, and has proven so in the light of experience. Many pitfalls in the administrative path would be greatly lessened by active representation of those intimately concerned on the administrative body. This is recognized in the recommendations of the Sas-

katchewan Health Survey Report, Vol. 1,² and is embodied in the statement of principles of the Canadian Medical Association and the Canadian Hospital Council. It is ably discussed by Taylor³ in a recent publication, "The Administration of Health Insurance in Canada".

OUTPATIENT SERVICES

During the first nine years of operation, payment was excluded for all outpatient services. Effective January 1, 1956, provision was made to cover payment to hospitals for outpatient tissue pathology studies at the arbitrary rate of \$4 for each specimen examined. The inauguration of this service was discussed neither with the pathologists nor the College of Physicians and Surgeons of the province. The hospital was paid on the basis of \$2 for each tissue specimen taken on an outpatient basis, while pathological examinations were paid for at the rate of \$4 for each specimen examined. The pathologist was given no remuneration for his "professional component" of the fee, and income received by the hospital itself was of little value since it could only be directed into general revenue. In effect, the payment for tissue outpatient services increased the work-load of the pathologist, and the revenues received by the hospital ended up in the consolidated funds of the province.

The above method of extending services without prior consultation represents an inherent danger under the present system of administration. With adequate representative administration this need not occur. Extension of outpatient services involves directly the realm of responsibility of the physician and his profession. Pathologists have been encouraged to make suitable agreements with the individual hospitals concerned for provision of this additional service, and a proper relationship between volume of work done and its remuneration.

PROBLEMS IN RADIOLOGY

In the provision of radiological services to "in-patients", the larger hospitals in the main have the services of the professional radiologist, and the hospital is paid the technical and professional component of the service by the Plan. In the smaller hospitals, in many instances, the hospital charges the Plan for both components when actually the professional component or interpretation is provided by the general practitioner who receives no remuneration for his service.

In outpatient radiological service a wide variety of systems is in use throughout the hospitals of the province. It is reliably reported that in some of the rural hospitals patients are charged the full fee by the hospital, but the doctor does not receive any fee for his interpretation. In other rural hospitals a salaried radiologist of a hospital may do extensive outpatient interpretations, and the

hospital collects both components of the fee. In the urban hospitals the radiologists in many instances have arranged for outpatient services on a fee-for-service basis, and they are paid the professional component by the hospital.

The question of radiological interpretation by the general practitioner, and remuneration for his services on inpatients and outpatients of a hospital, requires much clarification before it can become equitable in the Saskatchewan Hospital Services Plan. There is little likelihood, in the foreseeable future, that many areas of the province will have available the services of the professional radiologist. In the meantime the bulk of radiological interpretation will continue to be handled by general practitioners. This fact will require proper consideration in any planned extension of diagnostic outpatient service.

VOLUME AND TYPE OF HOSPITAL CARE

It is said that the volume of hospital care is directly related to the number of beds available. In 1956, the average number of days in hospital for all patients was 10.4. It is noteworthy that patients hospitalized over 30 days represented just 5% of all cases, yet accounted for more than 31% of total patient days. This emphasizes the importance of further study on the prevention of chronic illness, the provision of more convalescent beds and consideration of a planned program of home nursing care. Extensive studies relating to home and community social problems, nutrition, economic factors and sanitation could prove fruitful.

With "free hospitalization" at hand, the pressures on the practising doctor are logically increased. Patients have been known to "shop around" until rewarded by a physician who will hospitalize them irrespective of the merit of legitimate need. When outpatient diagnostic services are provided to the patient, further reduction in hospital bed requirements may ensue, with investigation of the borderline type of case outside the hospital. At present, undoubtedly a percentage of these cases are admitted to hospital on compassionate grounds only. The absence of any deterrent or direct contribution by the patient on a utilization basis may also increase the popularity of "being hospitalized".

Costs

In 1947 the total expenditure for operation of the Plan was \$7,560,763. In 1956 this figure had risen to \$22,055,360. The corresponding per capita comparison costs were \$9.68 in 1947 and \$26.54 in 1956. The average cost per case (excluding newborns) during this ten-year period rose from \$46.61 to \$124.46.

The foregoing figures show a steeply graded increase in costs, partly accounted for by increase in population covered, increase in percentage of

elderly persons, and increase in wages, costs of materials, etc. There is every indication these figures will increase further. This raises the question, "At what figure must something further be done to control the mounting costs, and what can be done to achieve this?" To answer this question very serious study may be necessary in the field of "utilization contributions" by the patient, and more facilities and services provided outside the active treatment hospitals. This could apply to the convalescent or patient requiring less extensive services than provided in an active treatment hospital. Better organization for home care, extension of convalescent hospital facilities now available, and organization of medical and nursing care programs including certain mobile hospital equipment to be made available outside hospital, are among measures which merit thoughtful study. Health educational programs should be further perfected. When it is realized that the costs outlined do not for the most part include the additional costs of capital construction and extension which are necessary, the total cost reaches a staggering figure.

CONCLUSION

The Saskatchewan Hospital Services Plan represents only one facet of health services in the province. Its successes, problems and shortcomings are a matter of intimate concern not only to government, but also to those providing the services and those receiving the service.

Under the present system of operation there is little help provided towards capital costs, and the rigidity of the Plan prevents any attempt by participating hospitals to provide in any effective manner for this contingency. To what degree this discourages local auxiliary efforts is a matter of some concern.

Further, with the advent of potential expansion in the field of laboratory and diagnostic services, inherent dangers exist when the administration and planning authority is limited to its present restrictive approach. Non-political groups vitally concerned are unable to provide the help, advice

and co-operation which are essential through purely occasional advisory conferences. This generates lack of confidence that standards and quality of service may be maintained.

The experience in Saskatchewan has demonstrated that while under the present system of administration considerable work of value has been done, it has been difficult to maintain a healthy liaison between government and associated vitally concerned groups, who are allowed only to function or contribute from a substantial distance. Only the fullest co-operative liaison by government, the Saskatchewan Hospitals Association, the professions and those representing the recipient of the service, can hope to perfect this experiment in health service to its highest quality. This must function in the planning stage, the administrative organization, and the day-to-day operation of the Plan, if costly mistakes are to be avoided, trends analyzed efficiently and sound appraisal of expansion programs is to be made. Without co-operation of the highest order, the total goodwill, confidence and finest resources of those concerned can never be fully available for the perfection of any form of health service.

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THE EFFECTS OF GOVERNMENT-FINANCED HOSPITAL SERVICE IN BRITISH COLUMBIA

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THIS IS A personal statement, made from a doctor's viewpoint. It deals with the effects that government-financed hospital insurance has had on the day-to-day practice of medicine in British

Columbia, as I have seen them and heard them discussed. Those affected are the leading characters in the practice of medicine, namely, the patient, the doctor, and the hospital. What has happened to them here in B.C. is important, for hospital insurance is part and just the start of health insurance. The principles that hospital insurance establishes will be effective all the way through health insurance. Anything to do with hospitals has a very direct impact on the practice of medicine.

The curtain rose on hospital insurance in British Columbia in January 1949, with the proclamation by the government of the Hospital Insurance Act and the setting up of a commission to administer the Act. The commission is a sub-department of the Department of Health and Welfare, and its commissioner has the status of a deputy minister.

The main aspects of the service are these:

1. All persons, after one year's residence in British Columbia, are entitled to hospital benefits.
2. Payments of hospital accounts cover acute hospital care. This includes the acute phase of any illness, including acute phases of chronic, but does not provide payment for chronic care.
3. Payment is made for standard ward care accommodation, including use of operating room, case room, almost all drugs and, in fact, all services that are provided by the hospital, except anaesthetics.
4. For use of outpatient hospital facilities required within 24 hours of an accident, the patient is required to pay a nominal fee of \$2.
5. All inpatients are required to pay a co-insurance rate of \$1 per diem, the exception being welfare recipients.
6. The residents of B.C. are entitled to limited insurance benefits, if hospitalized outside the province.

The method of payment for this service at first was by a levied premium, i.e. compulsory prepayment. This was individually at first, but after a year or so a payroll-deduction scheme was instituted. Premium rates increased each year. In 1951 a co-insurance deterrent charge for ten days' hospitalization per family unit per year was made (about \$35). The problem of collecting the premiums from the marginal groups—i.e. the transient workers, the pensioners, those who couldn't pay, and those who wouldn't pay—was never solved. Thus in 1954, with no public discussion and by order in council, the government decreed that the total costs of hospital insurance would be paid from general taxes and that a Social Service Tax (sales tax) would be increased from 3% to 5% to accomplish this. There has been no change in this status since 1954.

The patient, or more correctly the citizen of B.C., has been given a very needful portion of security. No longer can the sudden burden of a hospital bill deter him from agreeing to have good medical care. I would feel that there are no persons in B.C. who could now envisage a return to the status of "no hospital insurance". In the past eight and a half years the British Columbia Hospital Insurance Service (B.C.H.I.S.) has paid hospital claims in excess of one hundred and ninety million dollars.

During the "premium paying days" there existed a sense of individual responsibility. With the advent of "costs from taxation", the premium has gone underground. Any sense of responsibility or interest that ever existed in the minds of our

citizenry went out of the window with that change. I know I am in the minority, but it is my opinion that this constitutes a small deprivation of rights of our residents.

The ill person in the faster growing areas will find that the number of beds available has not caught up with the demand, and therefore he cannot be sure of admission when he desires or conveniently needs it. The patient in the "hospital-bald" areas of our province has no service equivalent to that of his urban counterpart, although his tax percentage is the same.

In the developing years of the service, the needs of hospitals increased progressively faster than the ability of the hospital insurance service to cover them. Prices had increased, hospital unions had obtained the forty-hour week, and wage increases had been substantial. It therefore became necessary for the government, through the B.C.H.I.S., to "tighten up" on hospitals. This was done by refusing to pay deficits in the yearly hospital budgets, and freezing hospital staff numbers and services at their existing levels. This, in my opinion, has been the most dangerous and yet least realized effect on the patient. The quality of care has been halted at the year 1952, and subsequent medical advances and the natural desire of his hospital to increase its services have been denied him. This unrealistic rule exists in 1958, and has been the only "freeze" in an otherwise delightful B.C. winter.

Enter the doctor. No longer must he weigh the advantages of hospital care to his patient against the detriments of a large economic burden on that same patient. He therefore renders good medical care in most cases. The stimulation of more hospital association with its educational aspects increases his diagnostic and therapeutic acumen. He is benefited in no small measure.

If you talk with him, the doctor responds to the Hospital Insurance Service with mixed emotions. If he is a radiologist or pathologist, his services have been included in hospital care and he is a salaried worker. He is concerned about the quality of his service in a financially static scheme. He is at present spending a great deal of effort convincing his employer that his care is not of hospital nature, but instead is an independent professional service just like that of any other practising physician.

If he is an anaesthesiologist, he practises as an individual in the hospital. The anaesthetists refused at the outset of B.C.H.I.S. to be included.

As a member of the medical staff of a hospital, the doctor has had many dramatic demonstrations of the extreme importance of adequate and harmonious liaison with his hospital directors. He, as a medical man, has been repeatedly assured by government spokesmen that the Boards of Trustees of various hospitals determine the destiny of each hospital and that hospital insurance is merely a convenient way of paying the bills. But the Hos-

pital Insurance Service insists on very rigid budgets, and will arbitrarily disallow new items or increases. This has resulted in repeated irritations and frustrations on the part of Boards of Trustees. These sincere men are asked to compromise and buy only the quality of medical care allowed by their budget, whether it be below the recommended standards of their medical staff or not. Naturally the medical staff criticizes the lowering or non-maintenance of standards of care, and serious quarrels and misunderstandings can blow up quickly between them and their Board of Trustees. Each side blames the other for circumstances that are beyond the control of both.

The doctor, as a member of his provincial medical association, has undergone remarkable mutations since the inception of B.C.H.I.S. The problems of hospital insurance have given the B.C. Medical Association the toughest task it has ever coped with. The dangling preposition is an excellent symbol of the half-prepared association that was presented in 1949 with the accomplished fact of government hospital insurance. They had been given no discussions prior to enactment. The association took a hard look at its organization and worked for a broader coverage of the medical field, and for more representation of the doctors of B.C. It has grown to 1500, which is 150 short of a perfect score. It is now "the clear voice of the doctors".

Two years after the commencement of hospital insurance, it was felt necessary for medical economic affairs to be divorced from the College of Physicians and Surgeons, theoretically a government board, and undertaken by the B.C. Medical Association.

Six years after the commencement of hospital insurance, medical association liaison with the government first came into being. This was by way of an unofficial committee which meets the Minister of Health and Welfare on any medical aspect and without any designation other than as representatives of the directors of the Association. At present, no official liaison in respect of hospital insurance exists between the government and organized medicine—a situation which has adverse effects on our second character in the practice of medicine, the doctor.

To complete the analysis, the hospitals and their effects must be considered. The initiative for capital expenditure and some of the funds for construction come from the community concerned. Hospital insurance has effected no change in this fact. The "running costs" of the hospital is the domain of hospital insurance. The funds made available for hospitals are voted by the legislature each year, and hospital operating budgets are required to conform to the funds made available. The Board of Trustees of a hospital still acts at community level and plans the "ways" for that hospital, but it has lost control of the pursestrings, the "means".

At the start of hospital insurance in 1949 the past deficits of various hospitals were paid off by a consideration in the per diem rate from B.C.H.I.S. This was of great benefit. The needs of the hospitals increased steadily, however, and in 1952 the "freeze" mentioned before came into being. Since 1952 deficits have not been recognized by B.C.H.I.S. This leaves financing problems, but no hospital in British Columbia has had to be closed because of financial embarrassment alone.

A look at the "business" growth of B.C.H.I.S. shows an expanding picture which is good. Hospital beds have increased 37%, patient days 50%, and staff 80% since 1948. In this same time expenditures for hospital insurance have increased well over 100%. This would indicate a marked improvement in the service. However, during this period, 1948 to 1957, salaries and wages have increased 225%. In 1948 salaries and wages stood at \$9,750,000 while for 1958 the estimate is \$32,000,000. The average yearly increase in total expenditures by hospitals since 1948 amounts to \$2,735,000. Of this, increases in salary expenditures account for \$2,160,000 while the increase in *all* other expenditures is only \$575,000. The doctor, thinking of medical services and not the "big business" statistics, sees a lop-sided progress. The hospitals have been helped out of debt. Their staff has increased. The hospital worker has had his standard of living increased remarkably. Ironically however, the beds available, the patients treated and the diagnostic and therapeutic advances have accounted for the smallest percentage of the increase.

This, then, is one person's view of how government-financed hospital insurance has affected British Columbia. I do not consider that the changes are specific to B.C., but that they are inherent in any such scheme. I think some changes will be permanent . . . in some minds, monuments; in other minds, scars. But they are the B.C. experience.

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While medical progress was accompanied by rising costs, it was also characterized by increasing public acceptance of the services that medical skill had to offer. This may appear to be labouring the obvious, but it is only fairly recently that the idea of a hospital as a place in which to get well has superseded the idea of a hospital as a place in which to die.—Malcolm G. Taylor: *Financial Aspects of Health Insurance*, Canadian Tax Foundation, Toronto, 1958, p. 1.

THE IMPACT OF HOSPITAL INSURANCE ON THE PRACTICE OF MEDICINE BILL 320 *ET SEQUENTIA*

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THE LINKING of insurance in some form with the provision of health care is not an idea of the last decade. Prepayment for doctors and hospital services was recognized in many places at the turn of the century. A. D. Kelly¹ in an article "Health Insurance in New France" calls attention to the existence of valid contracts of this nature in 1655 and 1681.

The Canadian Medical Association at its Annual Meeting in Calgary in 1934 began to take a more serious look at health insurance. As many will remember, during the war years of the early forties health insurance was much talked about and precipitated a special meeting of General Council, one of very few such meetings in our Association's history. In May of 1944 the "Principles of Health Insurance" were formulated and were approved by General Council at the Toronto Meeting of that year. Thus was health insurance officially recognized by the Association. In 1949 at Saskatoon a Statement of Policy was produced for the guidance of our profession. In June of 1955 these statements were re-edited and published under the title of "Statement on Health Insurance".

The C.M.A. Statement on Health Insurance was not enunciated without much thought and discussion. The idea that prepaid health care should be introduced by stages and that hospital care and diagnostic services should form the first steps was stressed. Since this 1949 meeting prepaid medical care and health insurance have been very much a part of medical economics.

During the final stages of its 1956-57 Session the Parliament of Canada passed, without a dissenting vote, Bill 320. This Act is enabling legislation and its short title is The Hospital Insurance and Diagnostic Services Act.² Since matters of health are to a large extent the responsibility of the Provinces, it is necessary that further action be taken at the provincial level. Here in Alberta, where I write, Bill 101 is the provincial enabling legislation and is known as The Hospitalization Benefits Act.³ Both of these acts require numerous regulations to spell out their functioning. The titles are clear enough, however, and direction is at once given to our thinking. My purpose is to consider some aspects of hospital insurance and its relationship to the practice of medicine.

A reasonable approach to this subject would seem to be to consider known and surmised effects of this legislation upon our hospitals, and from that to assess the impact such legislation might have on the practice of medicine. Hospitals have been referred to as "the doctor's workshop". It is

obvious that the character of the workshop will influence the worker and his product, hence our concern regarding the changes which these new Acts may bring about. Added interest comes from the fact that we are told that hospitals are more and more going to become the health centres of the community.⁴

At this point I wish to call to the attention of medical men, and others who work in hospitals, the chain of authority which permits them to work in a hospital. I quote from a presentation made at the 1957 meeting of the Ontario Hospital Association.⁵

The chain of authority which permits a medical practitioner to work in an Ontario hospital is this:

From the

QUEEN AND THE IMPERIAL PARLIAMENT (by means of The British North America Act, 1867) through the

ONTARIO LEGISLATIVE ASSEMBLY (by means of The Public Hospitals Act, 1957) through the

LIEUTENANT-GOVERNOR IN COUNCIL (by means of the regulations under The Public Hospitals Act, 1957) through the

BOARD OF DIRECTORS OF THE HOSPITAL (by means of the by-laws of the hospital which have been authorized by the regulations and have been approved by the Lieutenant-Governor in Council under the provisions of section 8 of the Hospitals Act)

Similar provincial legislation is in effect in each province.

To complete this piece of information one more quotation is necessary:

It is important to note that regulations, properly passed under the authority of an act, have the same force and effect as if they formed a part of the statute itself.

This means that hospital by-laws and regulations duly passed are statutory law so far as that hospital and those who work therein are concerned.

Keeping to the Canadian scene, we will turn for information and guidance to those provinces which now have hospital insurance. Saskatchewan and British Columbia have complete coverage, Alberta has coverage to a lesser degree (75-80% at the present time), and Newfoundland has its Cottage Hospitals and coverage for everyone 16 years of age and under. Some of these schemes have been in operation long enough for certain trends to be visible.

DEVELOPMENTS IN PROVINCES WITH HOSPITAL INSURANCE

We shall now list and consider several developments in connection with hospital insurance as

experienced in these provinces. These developments will be given as statements of fact and then these statements will be commented upon in the light of experience.

There will be Increased Demand for Hospitalization

This statement should not need much comment. Who creates this demand? The answer is, the patient and, to a lesser extent, the doctor. The patient wishes to get services to which he is entitled. Whether or not his illness is serious does not enter his thinking. The doctor, anxious to get the best for his patient in the realm of care—diagnostic and treatment aids—is inclined to advise hospital care. In the final analysis this approach is often economically sound.

Availability of Beds Results in a Corresponding Increase in Admissions.—This appears to be true until a certain bed level is reached, at which point a plateau is evident and admissions level off or begin to drop. In Saskatchewan it would appear to be between 7 and 8 beds per 1000 of population.⁶

The Alberta figures do not quite correspond, because of differences in recording chronic-care cases, but Alberta has 7 beds per 1000 population. This is an increase over ten years ago, but the following figures suggest an admission plateau on the basis of population. The percentage of population in hospital on a daily basis, for 1946 to 1956 inclusive, was .55, .53, .52, .52, .52, .52, .51, .53, .55, .55, .53.⁷ Alberta had a form of hospital insurance introduced with the Municipal Hospital Act of 1919. Persons in such districts received hospitalization for a very small contribution on their part. The so-called dollar-a-day plan began to function in June 1950 and was available, on agreement, with any hospital in Alberta. The complete coverage now operating began in January 1953.

In British Columbia, according to the Eighth Annual Report, it would appear that there is also a plateau with regard to admissions. Estimated days per thousand of population covered by B.C.H.I.S. are: 1949, 1528; 1950, 1548; 1951, 1496; 1952, 1545; 1953, 1638; 1954, 1786; 1955, 1782; 1956, 1747.⁸ British Columbia has an estimated 5.3 beds per 1000 population.

Rural Areas, Towns, and Villages have a Higher Hospital Admission Rate than Urban Centres

Figures arising from Saskatchewan experience indicate that this statement is true.⁹ Patients occasionally have to travel some distance to see the doctor, and if the prognosis is not too certain it is probably more rational to admit the patient to hospital than to send him home. There is the possibility that he may have to return the next day. Note the comment in the following section.

Average Length of Stay is longer in City Hospitals than in Rural Hospitals

This is a rather interesting experience. One suggested explanation ties in with the previous section, namely that in the city the patient is more apt to be referred back to his home, where he remains until he becomes quite ill, and thus needs longer hospitalization.^{9, 10}

Long-term Cases Account for a High Percentage of Total Hospital Days

This fact is a common experience with the various plans.⁶⁻⁹ A few figures in this respect are interesting.

LENGTH OF STAY—SASKATCHEWAN

1-10 days—	72.7%	of admissions—	33.5%	of hospital days
11-20 “	—17.2%	“	—22.2%	“ “
21-61 “	—10.1%	“	—44.3%	“ “

In Alberta persons staying 20 days or less account for 95% of the admissions and supply 72% of the hospital days. In both of these provinces the percentage is much the same for the short-stay cases. It would appear that Saskatchewan has a larger number of patients who remain in hospital for longer periods.

Statistics from British Columbia supply similar figures. Patients receiving Social Assistance and remaining 19 days or less in hospital account for 73% of the admissions and 35% of hospital days. Ninety per cent of the patients not receiving Social Assistance and hospitalized for 19 days or less account for 63% of the total hospital days.

Volume of Surgical Operations Increases with the Availability of Hospital beds

This trend is referred to by two writers.^{6, 9, 11} With an increase in admissions there is naturally an increase in the volume of surgery. The explanation of this trend is not immediately obvious. With increased facilities it would seem that doctors are doing more elective surgery. Further information and observation are certainly indicated in this area. The 1956 Annual Report of the Saskatchewan Hospital Plan gives evidence that this trend has levelled off.¹² Since an explanation is not at once evident, further developments must be watched with care.

Most of the Obstetrics will be done in Hospitals

This probably needs little comment. In the light of present teaching it is to be expected. In Alberta,⁷ where maternity hospitalization has been provided since 1944, it is very obvious. In 1955, out of 34,237 cases delivered, 32,508 were taken care of in hospitals.

INFLUENCE ON MEDICAL PRACTICE

Having considered some of the more apparent effects on hospitals of the legislation under consideration, we should now note the transmitted influence on the practice of medicine. In the hospital field such matters as administration, financing, staffing, construction, and equipping could influence the activities of the doctor. This fact must be ever before us. The Canadian Conference on Nursing, held in Ottawa last November, was partly stimulated by the realization that hospital insurance could easily result in unusual demands for nursing. To call attention to the intimate association of our two professions would be superfluous.

I wish now to be more specific about the results of influences which may be transmitted to the practice of medicine through our hospitals as a consequence of the legislation we have before us. I shall again make statements with comments.

"In Hospital" Medical Practice will increase

This is obvious, since more patients will be in hospital than at the present time. One can foresee the time when a doctor's practice will consist of office and hospital work almost entirely, house calls having ceased to be an important part of practice.

All Confinements will take place in Hospitals

In both Saskatchewan¹¹ and Alberta⁸ well over 90% of all births take place in hospital. Maternity work will thus centre around hospitals, and the doctor will be in the hospital rather than the home.

All Doctors will be placed in the Position of Requiring Hospital Privileges

Unless this requirement is met, the field of general practice will be limited, and that would be a tragedy. It is the responsibility of our Association, through our teaching centres, to see that our graduates are basically well trained. It continues to be our responsibility, through our hospitals, to make privileges available to those we have trained. We must remember that hospital and medical staff by-laws, rules and regulations are primarily of our making. In speaking on previous occasions I have said that when hospital privileges are denied a medical practitioner, for any reason whatsoever, his standard of practice is at once lowered.

Physicians' Services will be defined

This is necessary if those doctors who practise in the field of radiology, pathology and laboratory work are going to retain their right to negotiate about their method of practice and remuneration. The problem of approval costs in hospital operation arises here.

Our Pattern of Practice will be reviewed more often

To avoid any trends in medical practice which might be subject to question or criticism, our pattern of practice must be reviewed more often if we are to continue to practise happily under the changing demands of our time.

Historians are loath to give any opinion concerning an event until a lifetime has elapsed and the situation has been viewed from an unbiased standpoint. Those of us who are living while the event takes place can view it only in the light of our knowledge; this, together with the judgment of those whom we trust, must form the basis of our expressed opinions. I have personal communications from a good number of our members who have been very close to hospital insurance in the Western provinces. I shall now try to summarize some positive and some negative aspects in the light of present experience.

The consensus is that from the standpoint of the patient and the doctor, hospital insurance is a good thing. In the field of health it seems to be a sound concept, although negative qualities which arise during its implementation will have to be removed. It has helped to make people health-conscious, for which our profession has been working for years. It has brought accessory diagnostic services within the reach of all, resulting in better treatment. The standard of maternity care has improved and perinatal mortality has decreased. On the average, elderly patients are getting more adequate care. The doctor is able to see more patients under favourable circumstances with less strain on himself than ever before. He has the advantages of the assistance of other hospital personnel. The financial status of the doctor may also be improved, since his patient has no heavy hospital charges to finance and can more readily pay his doctor. In rural areas, long tedious trips are becoming fewer and fewer, thus conserving the doctor's time and energy. Hospital practice stimulates the doctor to keep abreast of the times and he is more apt to take extra training, to the advantage of his patients and himself. One writer has made the following statement, "Hospital insurance has made a tremendous impact on the practice of medicine in this province, almost 90% of which impact is to the advantage of both the patient and the doctor." Another comment in this connection was, "No doctor in this area could now envisage a return to the status of no hospital insurance."

On the negative side, the things mentioned include the following. Increase in the number of beds with inadequate staffing results in a lowering of the standard of treatment. Occasionally patients remain in hospital longer than is necessary, holding beds which someone else needs badly. There is a tendency to think that since this is insurance one should "cash in" on it. It has been suggested that

there may be a tendency to "sloppy diagnosis", since it would appear that, with added technical assistance, some doctors rely on equipment rather than brains. This brings up the undesirable trend of having patients admitted for investigation only. Some view with regret the fact that our elderly patients are no longer cared for in their homes, and that "the Christian virtue of being a brother's keeper" is fading from the scene. This is probably a trend of the times rather than a side effect of hospital insurance. These features, while undesirable, do not appear to be incurable.¹³ May I stress again the need for hospital privileges for all practising doctors.

Our thoughts have been centring around patients, doctors and hospitals. This is a rather limited field when one considers our society as a whole. In the economy of Canada, health care is one of the major items but far from being only one. The relationship of "wealth" to "welfare" is discussed in a recent economic study well worth reading.¹⁴

This presentation would indicate that hospital insurance on the whole is a good thing, and that its impact on the practice of medicine will not be deleterious. If this be so, what has gone wrong elsewhere—in Britain for instance? From this distant observation post it would seem that many of our confrères in that land are greatly discouraged. Perhaps we, by looking now, can avoid a wrong turning. I would advise anyone at all interested in this subject to read carefully an editorial in the *British Medical Journal* of November 23, 1957, and then turn to the Supplement in the same issue and read a Memorandum of Evidence to the Royal Commission. Much useful information is found herein, and also some answers to our question.¹⁵

May I at this point give two quotations from this material?

23. There was no lack of encouragement on the part of the profession to a comprehensive health service. Indeed, the need has been stressed by the Association on many occasions . . .

CONCLUSION. 59. This historical survey of the profession's past negotiations with the government shows—beyond all doubt—that sections of the profession joined the National Health Service in 1948 on the basis of assurance by the government that their future remuneration would be in accord with the principles set out in the two Spens Reports.

60. It also places on record that the government since it assumed responsibility for almost the whole of the profession's total remuneration has been reluctant to discharge its moral obligations, and such adjustments as have been made have only followed lengthy and bitter arguments and in one case a judicial arbitration. It is therefore not surprising that the government's conduct over remuneration in the past has left the profession with little confidence in it as an 'employer'.¹⁵

In our article we have concluded that the concept of hospital insurance is good. Members of our

profession in Britain were of the same opinion. Can a good principle become a bad one? Is the fault not with those who use it? As suggested above, the historian writing about the early years of hospital insurance will have answers to our various questions. May we be bold enough at this time to look at the British scene and say:

1. The whole scheme was introduced too suddenly.

2. Somehow, somewhere, liaison with government failed.

3. The medical profession did not appear to speak with one voice.

4. The general practitioner was denied hospital privileges.

The impact of hospital insurance on the practice of medicine in Canada is such that:

It requires that Canadian Medicine speak with one voice; that is, always and only through the Canadian Medical Association.

It requires that we maintain close liaison with government at all times, on the basis of mutual trust.

It requires that we work hand in hand with the Canadian Hospital Association in producing a workable plan.

It requires that every medical man be aware of the chain of authority under which he works while in hospital.

It requires constructive criticism, patience and tolerance from us all.

It requires that we recall to mind frequently those freedoms and principles of practice which have made the medical profession a leading profession in the world today.

These requirements are as important at the provincial level as at the national. We are all perfectly aware that the impact of hospital insurance will make itself obvious at the provincial level, and it is here that government and the profession will require that famous attribute of Solomon. Hospital insurance is with us, and will rapidly become part of our way of life; may this Association have an important part in the moulding of plans for the future.

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RÉSUMÉ

L'Association médicale canadienne s'est occupée du problème de l'assurance-santé pour la première fois à son assemblée annuelle tenue à Calgary en 1934. Après avoir étudié le problème, un certain nombre de principes fondamentaux furent formulés en mai 1944 et en 1945 paraissait une refonte des déclarations antérieures faites à ce sujet sous le titre de "Statement on Health Insurance". On y déclarait que l'introduction d'un plan de paiement anticipé de soins médicaux devait se faire par étapes; parmi ceux-ci les soins hospitaliers et les services de diagnostic devaient venir en premier lieu. Au cours de sa session de 1956-57, le parlement canadien adoptait la Loi de l'assurance-hospitalisation et des services diagnostiques que l'on connaissait déjà sous le nom de "Projet de Loi No 320".

Les directives générales du gouvernement fédéral demandent une application particulière à l'échelle provinciale puisque la santé est une des attributions des provinces. Comme la tendance actuelle veut que les hôpitaux deviennent le centre sanitaire de la communauté, il est naturel de penser qu'une loi régissant les hôpitaux aura un retentissement profond sur les activités des médecins et sur la médecine en général. D'après la délégation d'autorité qui découle de cette loi, les statuts et règlements d'un hôpital prennent par le fait même l'importance d'une loi statutaire.

Si l'on étudie les conséquences qui ont suivi l'application d'un système d'assurance-santé tel qu'il est déjà établi dans deux de nos provinces canadiennes (la Colombie et la Saskatchewan), on peut faire les observations suivantes:

Un tel système amène une hausse du taux d'hospitalisation. Une plus grande disponibilité de lits provoque un plus grand nombre d'admissions; cette relation cependant ne tient plus lorsque le nombre de lits atteint ou dépasse sept ou huit par 1,000 habitants. Le taux d'admission des districts ruraux, des villages et des petites villes est plus élevé que celui des centres urbains; par contre, la durée moyenne de l'hospitalisation est plus longue dans les villes que dans les campagnes. Les cas à longue échéance sont responsables du pourcentage plus élevé du total des jours d'hospitalisation même s'ils ne forment qu'un dixième des admissions totales (33.5% du total des jours d'hospitalisation pour les cas dont le séjour à l'hôpital est de 10 jours ou moins par opposition à 44.3% pour ceux qui y restent de 21 jours à 61 jours). Le nombre d'interventions chirurgicales augmente en proportion du nombre de lits libres. (On se demande encore pourquoi?) La plupart des accouchements se font à l'hôpital.

Quelle sera la portée de ces changements sur la vie du médecin? Il est permis de croire que la pratique intra-

muros prendra de l'ampleur. Tous les médecins devront avoir des privilèges d'admission hospitaliers sous peine de voir le praticien de médecine générale disparaître de la scène médicale. Les actes médicaux devront être précisément établis afin de ne pas les confondre avec les services que peut offrir l'hôpital. Il faudra effectuer des revisions fréquentes de notre mode de pratique afin de l'adapter aux circonstances nouvelles.

Malgré la proximité des événements et le manque du recul nécessaire aux historiens, nous pouvons saisir quelques aspects de ce changement dans leurs grandes lignes. Il semblerait que l'assurance-hospitalisation soit une bonne chose tant pour le malade que pour le médecin à condition de supprimer certains abus qui s'y glissent dès sa mise en vigueur. En plus d'attirer l'attention sur le problème de la santé, cette organisation met les services diagnostiques à la portée de tous, procure une amélioration dans les soins maternels et permet à la gérontologie de s'exercer plus librement. Le médecin voit un plus grand nombre de malades avec un moindre déplacement tout en espérant une rémunération équitable (le malade étant soulagé du fardeau que lui imposaient les frais d'hôpitaux pourra mieux s'acquitter de ses soins médicaux). Le milieu hospitalier favorise la culture médicale au cœur du personnel et permet ainsi aux médecins de se tenir à la page plus facilement.

Un plus grand nombre de lits doit nécessairement exiger une augmentation du personnel au risque d'infirmer la qualité des soins médicaux. Il faudra se garder également sous ce système de prolonger les séjours à l'hôpital plus que les circonstances ne l'exigent. On devra aussi conserver le sens clinique et résister à la tentation des épreuves de laboratoire qui, même si elles sont d'un accès plus facile, ne remplacent pas le raisonnement. Enfin, le problème des admissions pour seules fins d'investigation devra être résolu.

Si l'en est ainsi, comment alors expliquer la situation où se trouve la médecine en Grande Bretagne? D'après un mémoire soumis à une commission d'enquête royale, il semblerait que le gouvernement britannique se soit dérobé à ses obligations en ce qui touche la rémunération des médecins, et que ce manque de détermination de faire face à ses responsabilités soit à la base de l'état de chose actuel qui règne au sein de la profession médicale anglaise. Afin d'éviter les erreurs commises ailleurs dans le passé, le président de l'Association médicale canadienne offre les recommandations suivantes:

La médecine canadienne ne devrait se faire entendre que par une voix: à savoir, celle de l'Association médicale canadienne; nous devons rester en liaison étroite avec le gouvernement en tout temps dans un esprit de confiance mutuelle; nous devrions collaborer de près avec l'Association canadienne des hôpitaux afin d'élaborer un système pratique; chaque médecin doit garder à l'esprit la chaîne d'autorité de laquelle il relève pendant son travail à l'hôpital; enfin, nous devons faire preuve de critique constructive, de patience et de tolérance.

HOSPITAL INSURANCE—ITS IMPACT ON AVAILABILITY OF BEDS AND PERSONNEL

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STUDY OF THE NUMBER of hospital beds and the personnel to service them which may be needed for a given area has gone on formally and informally for many years. An examination of some of the numerous studies carried out¹⁻¹¹ leads to some obvious conclusions. Paramount is the conclusion

that any formula yet devised contains a fair amount of subjective influences and that methods of objective measurements of needs are poorly developed; it is equally important to note that need, demand, and rate of use vary in their relationship to each other, depending upon a number of factors such as ability to pay for care, the social and medical patterns of the society, and demographic characteristics, as well as several others. Not the least important of these factors is the changing concept of the role of the hospital, and the tendency of the public and their physicians to seek care within hospitals with increasing frequency.

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Any discussion of the influence of a program of universal hospital insurance on bed need, bed demand and personnel requirements must be undertaken with appropriate recognition of these and related factors.

For purposes of this paper and for the general discussion which will go on across Canada in the next few years, it seems desirable to define the terminology commonly used in this general area. Many of these terms have been used interchangeably in the past with confusing results.

NEED FOR HOSPITAL SERVICE

As Hoge¹² points out, need for hospital service is a medical concept and is that level of service required for the most effective diagnosis and treatment, within scientific knowledge, to restore or preserve good health.

DEMAND FOR HOSPITAL SERVICE

Hoge also points out that demand for service is a result of this need, as it is influenced by understanding, readiness and financial ability to use hospital services.

UTILIZATION RATE

It has been customary to think of the utilization rate in terms of the number of admissions or discharges per unit of population—usually per thousand and population. Since admissions and discharges over a longer period tend to balance out, either base is appropriate for acute disease hospitals. It is less appropriate to use discharges in long-term hospitals.

It is equally important to think of utilization of hospital beds in terms of the number of days' care provided per unit of population—again usually per thousand. One of the significant developments in the general pattern of hospital use has been that, as the number of admissions per thousand population has gone up, the length of stay has come down.

RATIOS OF BEDS TO POPULATION

Generally published ratios of beds to population are based on the number of beds per thousand population. In North America it has become traditional to express these by hospital categories, i.e., acute hospital beds, chronic hospital beds, mental hospital beds and tuberculosis hospital beds. In other countries there is a tendency to think of the ratio of all beds to the population unit. Over the past 50 years the number of beds provided per thousand population has increased steadily, and it is that increase which is the subject of these comments.

The number of beds needed or demanded, the rate at which patients are admitted to these beds,

and the length of time each patient will remain have not remained static in the past, nor is this number likely to remain so in the future. Any arithmetical ratios we may apply to the need for beds, the number of days' care which should be provided, or the number and type of personnel needed can only apply for a relatively short period of time. In any planning or in the application of any controls, a great deal of flexibility must be maintained. This fact is now becoming generally realized but a certain amount of inflexibility still remains.

An examination of some of the influences on the need for beds and personnel is of interest. These include:

(a) *The rising standard of living*

Basic needs for medical and hospital care are, in the main, unavoidable as they result from unexpected illness or injury; the amount of expenditure on meeting these basic needs is often determined, however, by the relative ease with which the individual or society can pay the bill. As our standard of living improves and, individually or collectively, we have an increasing amount of available funds to be used selectively, it is likely that one of our choices may be to spend more of our resources on health care. While it appears that we are spending much more on hospital services in Canada now than we were 10 years ago, there has been only a slight increase in the percentage of our productive capacity spent on hospital care. In 1947 in Canada we spent \$106,792,000 on general hospital care, or 1.44% of the net value of our national production; by 1955 we were spending three times as many dollars on hospital care (\$322,475,000) but only 2.02% of net production. Those of us who are interested in, and can best know the value of, good health care should be aware of the significance and potentialities of this seeming paradox.

With respect to hospital needs, it cannot be foreseen whether the public will spend its money on larger, more expensive hospitals or whether other alternatives will be found. It appears evident, however, that health personnel, who are the most knowledgeable in this area, must give leadership to society and analyze the various courses clearly. Undoubtedly, pressures of all kinds will develop which will be opposing or, at least, will differ in detail; some will demand more and larger hospitals, others will demand greater efficiency in the use of the beds we have, and still others will argue for such alternatives as home-care programs or better outpatient departments; some may suggest greater emphasis on prevention and health maintenance. In order to make a rational decision, our society with the leadership of its health and medical personnel must carefully consider all these alternatives.

(b) The effect of insurance

Prepayment by insurance with the spreading of cost more equitably and the removal of major financial deterrents tends to make hospital care available to all who need it. The result is that the volume of hospital care provided increases for certain segments of the population. As has been shown in a study done in Saskatchewan,¹³ a distinct social pattern can be delineated for areas that have high rates of hospital utilization. The areas in that province that had the highest rates of hospital utilization were generally the less favoured economically, they were farther from the larger centres and from hospital facilities, families tended to be larger than average, land values and income tended to be lower, and a lesser supply of physicians served these areas. It seemed, too, that the amount of sickness was greater, as was reflected by a study of repeat admissions in these areas.¹⁴ The Canadian Sickness Survey also demonstrates the fact that sickness and income tend to be inversely related. What appears to happen when comprehensive hospital insurance is made available to all is that the part of the population which has the larger amount of sickness will avail themselves of the care made available.

It has been frequently suggested that prepayment also increases demand—in some cases demand that cannot be justified by need. Whether any great element of abuse exists under an insurance program, whether comprehensive or not, is a matter for dispute. Certainly no objective studies have been made of this and it seems obvious that such studies should be made. The most likely sources of abuse of hospital services will be found, not in admissions for unnecessary treatment, but rather as results of such factors as the convenience of the patient or his physician, and less attention to administrative efficiency in scheduling discharges, surgery and diagnostic procedures. The extent of any of these influences will be determined by the interest taken by the insuring agency, the hospital staff and administration. In the situation best known to the writer, the control exercised by these three groups has been effective and abuses appear to be minimal.

(c) The increasing complexity of medical science

Aside from such factors as noted above, the increasingly complex nature of medical care influences the need for hospital beds; whether this need is met depends upon society's ability to meet the costs. Many new procedures can only be undertaken in hospital and many of these demand a relatively long stay. This trend is likely to continue as diagnostic and therapeutic procedures become more extensive and more precise, requiring an exacting control of the patient's environment. Care must be taken, however, by all concerned that the demand for expensive inpatient care is justified by actual need.

(d) The change in age composition

As our population grows older, the volume of hospital use by the older age group influences to a marked degree the number of beds required. In Saskatchewan, for example, the number of persons covered by hospital insurance who are 70 years or over has increased from 1947 to 1957 by 60.8%.¹⁵ In spite of the fact that this age group comprises only 9.8% of the total insured population, the days of hospital care provided for them amounted to almost one-third of the total care. The increased birth rate of the past few years will gradually change the age distribution pattern of our population, but this will have relatively little effect on the need for beds for some years to come. In the meantime, the increase in the number of aged in our population will continue to put increased pressure on the beds we now have and will likely increase the need for beds in the future.

PERSONNEL NEEDS

We now come to the question of the influence of comprehensive hospital insurance on the personnel needs. In the main, the same factors which influence the need for beds play their part in determining the kind and number of hospital personnel. As our ability to finance better care improves, there will be an increased demand for larger numbers of hospital personnel with greater and more highly specialized skills. At the present time there is an acknowledged shortage of skilled personnel all across Canada. Since it appears likely that the introduction of comprehensive national hospital insurance will increase the demand for more beds and better services, the personnel situation will become more serious.

Certain phenomena will influence the solution of this problem. In the first place the insuring agency, the government and, to some extent, the public will feel a greater responsibility to encourage additional training and to facilitate recruitment. The National Health Grants Program has demonstrated the increased interest of the federal government in providing more and better training facilities. Similar interest in training has been evidenced by the provinces, particularly those provinces where pressures are greatest because of wide-scale insurance programs. Hospitals and physicians, too, have increased their interest in training and recruitment, both through local activities and through their associations.

Secondly, the pressures for more personnel lead to a re-examination of the efficiency with which hospital personnel are now being used. In addition to the active interest that many hospitals have had in this problem, an outside interest—namely, the insuring agency—has been added. This interest is focused on a healthy comparison of one hospital with another; in addition, the insuring agency has found that it is in its interest to assist hospitals in improving their administrative

efficiency. As a result, we see skilled consultation, not previously available, being provided to hospitals in provinces that have insurance programs in being, and considerable interest in this area of activity in the provinces now planning programs.

A third influence probably will be at work which may increase the problems of staffing hospitals adequately. With public financing of hospitals, there is a tendency for hospital employees to demand working conditions and remuneration comparable with those in other fields of activity. It is perhaps significant that in two provinces with hospital insurance programs, salaries tend to be higher and the forty-hour, five-day week for hospital personnel is almost universal. Without going into the social or economic justification for this, it must be admitted that these pressures have made it more difficult to staff hospitals adequately. It has been argued that better working conditions and higher salaries will attract more people to the hospital field; there seems to be no immediate evidence that this will be true. It remains for future experience to tell us that.

In conclusion, it seems evident that the number of hospital beds we shall need under universal hospital insurance cannot be as simply stated as we have assumed. Various ratios of beds to population have been suggested in the past. In the United States a desirable goal was set at 4.5 acute hospital beds per thousand in the absence of universal insurance coverage. In two provinces the goal, which has now been reached, was set at 7.5 beds per thousand. Other provinces have set goals somewhere between these two figures.

It seems clear that the number of beds per thousand required and the use made of those beds will vary from place to place and from time to time. The number of days' care required will depend upon many social, demographic and economic factors. The appropriate answer to this complex question will be provided when the public, their governments and, particularly, professional health workers who provide the leadership, appreciate the issues involved, the factors influenc-

ing bed need and demand, and the ability and willingness of society to meet the costs. Numerical ratios of beds to population will be useful as guideposts, particularly when these are used in conjunction with studies of how beds are being used.

By a democratic process with diverse pressures exerted from all sides, we can expect that our concepts of hospital bed and personnel requirements will be evolutionary rather than static. Each area in Canada and, indeed, each hospital will require individual consideration. While the application of general ratios of beds to population and staff per bed will be useful, the most appropriate decision will be reached when all concerned apply their knowledge and understanding to the problem, tempered by their desire to achieve the optimum benefits for society.

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HOSPITAL ACCREDITATION AND HOSPITAL INSURANCE

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THE ENACTMENT of Bill 320 by the House of Commons of Canada and its acceptance by the necessary number of the provinces will produce far-reaching changes in the practice of medicine and the rendering of hospital services to the Canadian people. The Canadian Medical Association representing the doctors of Canada has, for a number of years, been striving to anticipate the

needs of the Canadian people in their search for better health and has given support to all worthy projects designed to that end.

It was inevitable that, with the rapid strides being made in our scientific knowledge and the greater team-work required between doctors and hospitals because of these new weapons against disease, the Canadian Medical Association should become deeply interested in the hospitals of Canada. It was this interest that prompted the Canadian Medical Association to set up in 1950 its Committee on Accreditation of Hospitals.

This Committee was instructed to consider the whole question of standardization and approval of

hospitals in Canada, and particularly whether or not it would be feasible for some committee in Canada to approve and standardize hospitals. Until that time the only organization which had concerned itself with the standard of hospital care in Canada had been the American College of Surgeons, which had been surveying hospitals in the United States and Canada and had been placing their stamp of approval on hospitals measuring up to American College standards. Before the Committee on Accreditation of Hospitals had time to proceed very far with its study, the American College of Surgeons announced its withdrawal from the field of hospital accreditation and in 1951 the Joint Commission on Accreditation of Hospitals was established in the United States. Canadian medicine was invited to be represented on that body and the Canadian Medical Association accepted a seat on the Joint Commission.

The study of the problem in Canada, however, continued and it was quickly recognized that if the accreditation of hospitals in Canada was to be effective it must encompass all facets of hospital activity. The Canadian Medical Association, continuing to take the lead, invited the Canadian Hospital Association, the Royal College of Physicians and Surgeons of Canada, and L'Association des Médecins de Langue Française du Canada to join forces with them and establish a committee which would represent these organizations in surveying and accrediting hospitals in Canada.

Thus the Canadian Commission on Hospital Accreditation came into being. The Canadian Commission decided that in the initial stages of its program it would be wise to work through the Joint Commission in the United States, and since 1952 the hospitals of Canada have been surveyed and approved by the Joint Commission on Accreditation.

The finances required for the survey of Canadian hospitals have been provided by the Canadian Medical Association and the other organizations comprising the Canadian Commission on Accreditation. This money is "voluntary money" and not one penny has been received from government, insurance companies, or other sources. Thus the program of hospital accreditation in Canada has been operated and financed as a voluntary effort on the part of the medical and hospital professions, its sole object being to improve the hospital care of the Canadian people.

The Canadian Commission on Hospital Accreditation since its inception has eagerly looked forward to the day when the program could be operated in Canada solely as a Canadian effort.

If one stops to consider our great country, composed as it is of ten provinces, each with its own Department of Health, our two great ethnic groups with dual languages, our universities interested in teaching hospitals, and now the introduction of the insurance principle by government in hospital care, it must become evident that a program of

hospital accreditation directed from the United States could not serve our peculiar needs in Canada as well as one operated by Canadians and for Canadians.

With these things in view the Canadian Medical Association has resigned its seat in the Joint Commission on Hospital Accreditation, to take effect from December 31, 1958. As of January 1, 1959, the Canadian Commission on Hospital Accreditation will be the agency in Canada surveying and granting approval to our Canadian hospitals.

Every effort will be made to have the standards of Canadian hospitals parallel those of the United States, and it is hoped that a close liaison can be maintained with our American friends with whom we have worked so amicably during the past six years.

What has the program of accreditation of hospitals accomplished in Canada to date? In order to properly evaluate the program of hospital accreditation as it now exists, it must be borne in mind that the program is a voluntary one. No hospital or its medical staff is compelled to seek accreditation. A survey of the hospital is made only after a request from its Board of Governors and medical staff and only after evidence is produced that some effort has been made by that particular hospital to meet the standards laid down by the Commission on Accreditation. If, after a careful survey, the hospital and its staff are found to be rendering good patient care, then and then only does the Commission place its stamp of approval on that hospital. As of now approximately 50% of the Canadian hospitals eligible for accreditation carry this stamp of approval. While this figure leaves much to be desired, it is a vast improvement over conditions which prevailed five years ago, and the number of hospitals seeking a survey is steadily increasing each year. This effort is being put forth by the hospitals and doctors of Canada purely on a voluntary basis to improve patient care. No monetary or penalty award accrues to the hospital whether or not it is accredited. I believe it can be categorically stated that patient care is better in an accredited hospital than it is in one not accredited. It is the ambition of the Canadian Commission to have every eligible hospital in Canada surveyed and accredited. This will necessarily take time and much must be done in the way of education of the medical and hospital professions and the public at large before this ambition can be realized. I believe, however, that it can and must be done.

Bill 320 states in part, "In every agreement, the Provinces shall covenant and agree to make such arrangements as are necessary to insure that adequate standards are maintained in hospitals, including the supervision, licensing and inspection thereof." Thus we see that provision is made in the Bill for carrying out a program similar to the one already being done by the Canadian Commission on Accreditation. While it is true that the Canadian

Commission on Accreditation does not license a hospital, it does survey and maintain standards, and one could easily visualize the whole program of accreditation being swallowed up by a new governmental service instituted by a hospital services commission established in each participating province.

Since its inception the program of hospital accreditation in Canada has been keenly watched by our health authorities on both federal and provincial levels, and it speaks well for the program that to date at least no interference by government has taken place.

The Canadian medical profession through the Canadian Medical Association, the Royal College of Physicians and Surgeons, and other bodies is also keenly interested in postgraduate training in our hospitals. The Canadian Medical Association requires approval of a hospital by the Commission on Accreditation as a prerequisite for its approval of a hospital for junior internship. The Royal College of Physicians and Surgeons of Canada has also demanded that a hospital be fully accredited before it will be considered for approval of any graduate training program. Thus our whole system of graduate training of doctors in Canada is intimately linked to and dependent upon the accreditation of hospitals as it now exists.

One can only view with horror the chaos that could result in this field were ten hospital services commissions in Canada to set up varying standards in each province for hospital accreditation: standards which might be satisfactory for monetary purposes but leave much to be desired in the field of patient care and postgraduate training.

Hospital services commissions, although to all intents and purposes above politics, are nevertheless appointed by the party in power at the time and are responsible only to the government of the day. Furthermore, a hospital services commission must of necessity be closely related in a financial way to hospitals, and their approval or disapproval could carry serious financial implications. It would seem evident that a non-political independent committee, representative of all organized medical and hospital bodies in Canada and unfettered by political affiliation, could carry out the work of conducting surveys and putting the mark of approval on hospitals better than a hospital services commission.

As has been stated previously, the program is a voluntary one and no pressure is brought to bear by the Commission on Accreditation to coerce any hospital into seeking accreditation. It is worthy of note, however, that in the United States certain insurance plans have used such accreditation as a basis for a preferred rate for payment of accounts.

The only goal of the Canadian Commission on Hospital Accreditation is the improvement of patient care in our Canadian hospitals. Can this improvement in care be best provided by a

governmental agency setting up standards, tied to financial grants and carrying monetary penalties, or can it be best produced by a voluntary effort on the part of doctors and hospitals? Doctors and hospitals working together as a team take pride in their achievement at a local level—a pride strengthened by the fact that in their own hospital they have voluntarily met standards which are applicable to patient care all across Canada. I believe the latter is the more desirable way.

What the future holds for Canadian hospitals and Canadian medicine is open to conjecture. We have some reason to hope that in spite of the power granted under Bill 320, the relationship of the Commission on Accreditation of Hospitals to our Canadian hospitals and their medical staffs will not be disturbed. British Columbia and Saskatchewan, two provinces already supplying hospital services and whose legislation gives them power to categorize and accredit hospitals, have not seen fit to disturb or question the accreditation program, and Ontario has, as yet, made no move to supplement the accreditation survey program.

One should be constantly aware of what has been accomplished to date. Hospitals which five years ago had no organized medical staff, no categorization of surgical and obstetrical privileges, no tissue committees, no by-laws for the conduct of the medical staff or governing boards, have now voluntarily brought their hospitals under the accreditation program and are using accreditation standards as their yardstick for measuring quality of patient care.

To date our weakness has been in interesting the smaller hospitals in Canada in the program. A very high percentage of the hospitals with over 150-bed capacity are fully approved, but for the hospitals of from 25 to 150 beds the record is not yet too good. This is due, I believe, to apathy on the part of two groups of people, the medical personnel serving these smaller hospitals and the governing boards. The Canadian Commission on Accreditation is attempting to correct this situation by a program of education, not coercion.

What then should be the impact of hospital insurance on accreditation? Bill 320 provides that by legislation accreditation can be carried out by a governmental agency. This should be a challenge to the voluntary agencies representing the Canadian Commission on Hospital Accreditation to carry out so successfully a program now in operation in Canada that no government agency of the present or future will have any reason or desire to upset the work of the Canadian Commission on Hospital Accreditation.

Let us then, as medical and hospital professions, accept this challenge to keep high the standard of patient care in our Canadian hospitals and let us preserve the right to have that care judged by our peers.

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RÉSUMÉ

Comme preuve de son intérêt dans la question hospitalière l'A.M.C. en 1950 créait un comité d'accréditation des hôpitaux dans l'intention de continuer et de compléter l'œuvre commencée par le Collège américain des chirurgiens qui, jusqu'alors, s'en était chargé. En 1951 la commission conjointe canado-américaine était formée. Grâce à la collaboration d'organismes comme l'Association médicale canadienne, l'Association canadienne des hôpitaux, le Collège royal des médecins et chirurgiens du Canada et l'Association des médecins de langue française du Canada, un comité d'accréditation entièrement canadien vit le jour. Ces organismes se chargèrent des mises de fonds nécessaires pour en assurer le fonctionnement. Bientôt nous verrons l'Association médicale canadienne se retirer de la commission conjointe dont la tâche débordait les cadres. Les standards maintenus jusqu'à présent ne seront point relâchés mais au contraire seront mieux adaptés aux conditions géographiques et ethniques du Canada. Aujourd'hui

50% des hôpitaux du pays satisfont aux exigences du comité. La majorité des grands hôpitaux du pays y adhère; cependant de petits hôpitaux de 25 à 150 lits n'en font pas encore partie. Il reste donc du progrès à faire. Le projet de loi récemment adopté contient des causes permettant une telle inspection. Les gouvernements fédéral et provinciaux ont suivi l'évolution du programme d'accréditation depuis sa création sans avoir jusqu'à présent cherché à s'y ingérer. Il est à espérer qu'ils conserveront cette attitude car on peut facilement imaginer la confusion qu'entraînerait l'établissement de dix commissions provinciales indépendantes chargées d'accréditer les hôpitaux. L'adhésion au programme du comité est entièrement volontaire et aucune pression ou influence n'est exercée pour forcer les institutions hospitalières à y adhérer. Le seul but de cet organisme est l'amélioration des soins aux malades hospitalisés. Ce programme d'examen volontaire a certainement contribué à atteindre et à maintenir un niveau d'excellence dont nous sommes fiers. Souhaitons de pouvoir conserver le droit d'être jugés par nos pairs.

HOSPITAL INSURANCE AND
MEDICAL EDUCATION*CANADIAN ASSOCIATION OF
MEDICAL COLLEGES

A SIGNIFICANT STEP in the implementation of a National Hospital Insurance Plan was taken by the Canadian Parliament with the approval of Bill 320 on April 10, 1957. This Act authorizes the Government of Canada to assist the provinces in providing hospital insurance and laboratory and other services in aid of diagnosis.

The Association of Canadian Medical Colleges, comprising the deans and other administrative officers of all twelve Canadian medical schools, welcomes the action of the government in thus extending the benefits of hospital care to all Canadian citizens who need it.

Nevertheless, the Association recognizes that there may be certain dangers as well as opportunities for improvement involved in changing the system of providing hospital services. The Association therefore begs leave to present to the Honourable the Minister of National Health and Welfare the following observations and suggestions.

The goal of the hospital insurance plan is to make hospital services of the highest quality available to all citizens. In removing the economic barrier, it is important that no action be taken that would inadvertently lower the quality of the services which a hospital performs. The primary, although not the sole function of a hospital is to serve as a centre in which the patient receives the benefit of the most modern medical knowledge and techniques for the diagnosis and treatment of illness. The Act makes adequate provision not only for maintaining but extending the scope of this function. However, a modern hospital also serves other

purposes which are important to the community and nation, and are vital to the long-term progress of medicine and even to maintaining present standards.

These additional functions include:

1. Medical and nursing education and the training of other personnel for hospital and health services.
2. Medical research and clinical investigation.
3. Community health services such as outpatient clinics for the prevention, diagnosis, and treatment of disease.

The high standards of Canadian medicine in the last half-century are in considerable measure due to the efforts of men and women who are graduates of Canadian medical schools. The importance of bedside teaching was emphasized by a great Canadian, Sir William Osler. He said in speaking of teaching at the clinical level, "In what may be called the natural way of teaching, the student begins with the patient and ends with the patient, using books and lectures as tools, as means to an end." This statement is as true today as when he wrote it at the height of his career as a great teacher of medicine. Indeed, clinical teaching is based on the close association of great hospitals with our medical schools. The patients on the teaching wards, while enjoying exemplary treatment, are at the same time available for teaching and investigation under the direction of expert physician-teachers who are selected by the university and the hospital.

It is also essential to medical education that the university teaching hospital maintain a complete outpatient department giving exemplary service and providing teaching experience for medical students and doctors. It is in such a setting that students will encounter conditions which most closely resemble the practice of medicine as they will see it in later years.

There is some evidence that nation-wide hospital insurance may disturb this system of clinical in-

*A brief on the subject of national hospital insurance and its relation to Canadian medical education, prepared for submission to the Honourable the Minister of National Health and Welfare, from the Association of Canadian Medical Colleges, November 12, 1957.

struction. Indeed, in some provinces where hospital insurance has been in force and where there has been no long tradition of medical teaching there is already some difficulty in securing sufficient numbers and variety of patients to enable the schools to carry out a satisfactory teaching program. There seems no doubt that a universal system of hospital insurance is in the interest of the Canadian people. It is just as certain that if it is to be successful, a continuing supply of well-educated doctors will be required and the majority of them should come from Canadian schools.

The Association of Canadian Medical Colleges, feeling that it is essential to maintain the high quality of medical education in Canada, respectfully recommends as follows:

1. That in the framing of legislation, agreements and regulations governing hospital insurance, there should be safeguards to assure that every school of medicine shall have hospital teaching units with a sufficient number of beds that are controlled by the Faculty of Medicine. Ten beds for each student in the senior class is recommended as a minimum.

2. That a complete outpatient service offering diagnosis and treatment services be provided in university teaching hospitals. Good outpatient facilities now exist in some schools and it is essential that nothing be introduced in the new legislation and regulations which would reduce the number of patients seeking advice, or the quality of services provided at these clinics, or interfere with the hospital's ability to finance such services. Indeed it is of vital importance to medical education that regulations be framed in such a way that it will be possible to bring the outpatient services of all teaching hospitals up to the required standard. Our interpretation of Section 5/2/A of Bill 320 has given rise to some concern as to whether the objectives noted above can be achieved under this legislation.

3. That governments recognize the absolute necessity of having teaching units in university hospitals. Such units are staffed by qualified, skilled teacher-physicians appointed on the one hand by the university as teachers, and by joint agreement with the hospital as physicians responsible for the exemplary treatment of the patients. The director of the service must assume responsibility for both the quality of teaching in the unit and the treatment of the patient. Patient care is based on the principle of carefully graduated responsibility with individual patients assigned, under supervision, to medical students, physicians in advanced training and junior staff members in accord with their capabilities. Such teaching units provide the highest standard of treatment for the patient while at the same time providing the best opportunities for learning.

4. That in the setting of daily rates for hospital care under an insurance plan it should be recog-

nized that such teaching units will cost more per patient-day than non-teaching units.

5. That in those instances where new units or additions to existing teaching hospitals are being planned, the number of beds required in the university teaching hospital should not be determined on local needs alone, because such a centre will provide specialist and consulting services for a much larger area than the immediate community.

6. That where new teaching hospitals or additions to existing teaching hospitals are being planned, larger federal government grants should be made available to provide for both outpatient and inpatient facilities.

The members of this association wish to assure the Federal Government of Canada that they will be glad to offer any assistance to the officers of the Department of the National Health and Welfare in discussion of any of the matters that are raised in this brief, and further, that as individual members they will stand ready to assist in any way possible in the framing of provincial regulations in so far as such regulations may affect the future of medical education.

RÉSUMÉ

L'Association des écoles canadiennes de médecine se réjouit de l'initiative prise par le Gouvernement de dégrever tous les citoyens canadiens des frais d'hospitalisation qu'ils pourraient encourir. Elle voit cependant certains dangers sur lesquels elle aimerait attirer l'attention des dirigeants. Le but immédiat d'un hôpital est d'offrir des soins aux malades; l'hôpital existe aussi à d'autres fins non moins importantes telles que la formation des futurs médecins et gardes-malades ainsi que du personnel technique, la poursuite de recherches médicales et cliniques, et l'entretien de services de santé comme les dispensaires pour prévention, diagnostic et traitement des maladies. L'apologie de l'enseignement clinique n'est plus à faire. La médecine canadienne n'aurait jamais atteint le rang qu'elle occupe sans l'apport des anciens élèves de ses écoles de médecine. Le grand Osler enseignait que la formation médicale doit commencer avec le malade et aboutir au malade. L'Association se permet donc d'insister pour que chaque école de médecine puisse continuer à se servir à son gré des hôpitaux pour fins d'enseignement. (Le minimum adéquat à ce propos est un nombre de 10 lits pour chaque étudiant de dernière année). Cette liberté devrait s'étendre également aux différents dispensaires. Le gouvernement doit être saisi de la nécessité absolue de maintenir des groupes d'enseignement dans les hôpitaux universitaires. L'établissement des barèmes de rémunération des hôpitaux doit tenir compte que les soins améliorés que reçoivent les malades dans ces circonstances proviennent de l'expérience et des connaissances de ceux qui font partie de ces groupes et justifient l'accroissement du coût que ces unités entraînent. Les dispositions prises à l'égard de ces unités ne devraient pas l'être en regard uniquement des conditions locales car les avantages de diagnostic et de traitement qu'offre un corps de spécialistes consultants attirent toujours des cas référés d'un large territoire.

A more highly educated public, more enlightened as to the benefits of good health care, looks upon rising standards of medical care for themselves as concomitants of a rising standard of living, and will increase expenditures for medical and hospital care even in the absence of a national program.—Malcolm G. Taylor: *Financial Aspects of Health Insurance*, Canadian Tax Foundation, Toronto, 1958, p. 100.

THE IMPACT OF HOSPITAL INSURANCE ON MEDICAL PREPAYMENT PLANS

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ALTHOUGH the proposed hospital insurance legislation is specifically designed to provide hospital care, its provisions do at the same time mention certain services which are primarily grouped under medical services. Consequently, these proposals should be carefully studied with regard to their impact on prepaid medical care plans.

It has always been my personal conviction that no such thing as hospital services exist. What is really understood by this term is medical care in hospital. I know nothing that can be done for a patient in hospital that is not under the direct control of a doctor, and therefore must be construed as medical care. The doctor admits the patient, designates his diet, his medication and all other things carried out for the patient's benefit, and then discharges the patient. All such care is therefore medical care.

However, it is not the purpose of this paper to argue this point, but merely to outline some of the alterations that may occur in the operation of the medical care programs offered by members of Trans-Canada Medical Plans, and to examine the impact of hospital insurance as it may affect various phases of these activities.

IMPACT ON MEDICAL PRACTICE

There is no question but that health insurance will put a tremendous pressure on doctors who can admit patients to hospitals. For doctors who have no hospital facilities or privileges, and who may derive a fair amount of their income from home and office care and certain diagnostic facilities which they may be able to provide, this will definitely mean a dislocation of at least one possible source of their income. Although it is not known as yet that any individual province is prepared to offer diagnostic facilities on an outpatient basis at the moment, it becomes very obvious, nevertheless, that provision of certain diagnostic facilities including x-rays and electrocardiograms, laboratory services and even certain phases of physiotherapy, free to the inhospital patient will have an adverse effect on the practice of those who are supplying these services in their offices. If diagnostic procedures are offered free to hospital outpatients, the dislocation will be very much more serious.

EFFECT ON CONTRACTS

It follows from what has been said about diagnostic procedures that if these are now covered

for inhospital patients in any medical care contracts, this coverage will obviously be dropped. Plans may have to take a second look at the provision of such services for outpatients, because overcrowding in hospitals will cause increased utilization and might force more and more of the diagnostic procedures to be performed under their medical care coverage. If employers are contributing to a combined hospital and medical care plan at the present time, and no longer have to pay any part of the cost of hospital insurance, great pressure may be put upon them to contribute to some new phase of medical care. Such things as extended medical coverage may be demanded very quickly in medical care contracts after the beginning of a compulsory hospitalization plan. Even now, politicians are promising such extended coverage.

EFFECT ON UTILIZATION

Any plans operating both hospital and medical care plans know very well the effect that one has on the other. Anything increasing the utilization of hospital care will obviously increase the cost of providing medical care for the same patients. It becomes quite clear therefore that the cost to the plan for over-utilization of medical care in hospital will be very considerable, particularly in the early phases of the operation. In some areas this may be seen quite readily in obstetrical care, if a large percentage of the population does not now receive that care in hospital. It may be reflected in increased elective surgery for conditions such as hernias, tonsils and pelvic floor repairs. It obviously will be very much more marked in medical conditions, particularly in those involving the upper respiratory and digestive tracts.

It is also quite probable that there will be increased utilization of consultations, since patients going to hospital will demand more frequent and more extensive consultative services than are now provided. For persons who have disability insurance and income protection policies, it is almost certain that more medical care will be provided, and that they will utilize hospital care much more than formerly. There will very likely be a much more extensive service for such diagnostic procedures as cystoscopies, bronchoscopies and various other endoscopic procedures, as well as medical services in the fields of radiology and pathology.

EFFECT ON RATES

It is difficult at this moment to determine whether or not there will be any over-all change in the rates for prepaid medical care. Since a high percentage of the claim dollar goes for home and office calls and diagnostic procedures, especially in the comprehensive coverage plans, until we know the full coverage to be provided under the proposed health insurance legislation it would be difficult to predict the net change in rate structure

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that might result from increases on one side and decreases on the other.

EFFECTS ON ENROLMENT

An increased demand for medical care coverage may be expected; therefore, I would feel that enrolment will go up and that plans will receive a large number of applications for coverage. This obviously may involve an increased demand for community and individual enrolment over and above what is now available in most of the plans. Even in those areas where some type of premium policy may be established provincially, it is presumed, but certainly not proved, that neither this premium nor any deterrent would be of such an amount as to make it improbable that the patient could provide himself with medical care coverage. Prepayment plans would also probably have to reconsider the possibility of enrolling older persons individually. Pressures from all types of groups to provide more and more coverage for medical care services will be used as an example of the necessity for complete medical care insurance under the government. This will be made to indicate that voluntary prepayment plans may not be able to meet this need. This has already been the case in hospital care insurance.

EFFECT ON CLAIMS

The over-all number of claims to be handled by plans will go up in proportion to the total hospital admissions. Since claims for minor diseases and small accounts are very expensive, this may involve a very serious increase in claim cost to the plans. Moreover, there is apt to be an increase in the number of claims involving care by two or more doctors, since every other phase or concomitant condition from which a patient may suffer when he is in hospital will have the care of somebody during that hospital stay. This will be particularly true for older patients who very often need specialized care, particularly in the large centres.

Offsetting this increased claim cost, of course, may be a fair amount of decrease in money values for certain diagnostic procedures, as mentioned before. How much this will offset the previous increase is problematical at the moment.

EFFECTS ON THE OPERATION OF PREPAID PLANS

One of the very serious implications of introduction of over-all hospital insurance on the actual operation of prepayment plans will be the tremendous increase in competition for personnel which hospital insurance is going to start in Canada. There is a dire shortage of many of the highly trained personnel necessary to operate prepayment plans. Obviously hospital care plans are going to look immediately at the staff of medi-

cal prepayment plans to procure the help they may need for their services. Actuaries, accountants, statisticians, I.B.M. operators, tabulating clerks, claim adjustment clerks—all these people have been trained in the operation of prepayment plans and they will become fair bait for hospital insurance commissions. In those areas where Blue Cross plans have been taken over entirely by hospital insurance commissions, sufficient staff may be obtained, but there is every reason to think that more personnel will be needed and that prepayment medical care plans may feel very severely this competition for their personnel.

GENERAL EFFECTS ON MEDICAL PRACTICE

I would hesitate to be too dogmatic about the effect that hospital insurance is going to have on Canadian doctors and the relationships of certain types of practitioners with the prepayment plans. What the ultimate pattern of practice will be for radiologists, pathologists, specialists in physical medicine and electrocardiography, and many other types of salaried physicians is very difficult to predict. It would seem impossible, and it may even be inadvisable, for prepayment plans to attempt to solve the problems involved in relation to the coverage of certain phases of the activities of practitioners. Organized medicine in the various specialty groups involved may have to work out in detail the method of reimbursement for such services. Because more and more of these services are going to be handled through hospitals, according to the present trend, it is quite possible that the best solution is for the individual specialist to decide for himself what are the best terms on which he can get adequate remuneration by contract or agreement with hospitals. The ultimate form of this agreement with hospitals will determine what effect hospital insurance will have on the terms and conditions under which prepayment plans operate.

TEACHING ON PRIVATE PATIENTS

The chief concern that I feel about the individual and his attitude towards prepayment centers around his probable ignorance of what a great protection it is to him to be used for teaching. On that point we must all focus our imaginations, our solicitude, and our educational endeavors. Since teaching on private patients has been done successfully for years at the Billings Hospital of the University of Chicago, and has been done steadily in increasing measure in most of our teaching hospitals, there is no cause for concern except on two points: that patients and their doctors will prefer the nonteaching hospitals and that the trustees of such nonteaching hospitals will refrain from medical school affiliation, preferring a high bed occupancy to the opportunity to give better care.—Alan Gregg: *Challenges to Contemporary Medicine*, Columbia University Press, New York, and Oxford University Press, Toronto, 1956, p. 93.

THE HOSPITAL INSURANCE AND DIAGNOSTIC SERVICES ACT: ITS IMPACT ON HOSPITAL ADMINISTRATION

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THE HOSPITAL INSURANCE and Diagnostic Services Act, Bill 320, which was passed by the House of Commons on April 10, 1957, provides for a contribution by the Federal Government of 50% of the cost, more or less, to any province which agrees to make insured hospital services, inpatient services and outpatient services, available, upon uniform terms and conditions, to all residents of the province so entitled under provincial law and without charge to the residents except a general charge by way of premium or other amount not related to a specific service and except authorized charges.

Hospitals covered under the Act do not include hospitals for tuberculosis or for the mentally ill, nor do they include nursing homes or any institution for custodial care. Drugs are excluded under outpatient services. Also excluded are capital expenditures and capital debts. Each province will administer its plan and each province has the right to decide how it will raise its share of the costs, whether it be by premium or taxation.

The present system has not met the needs of the Canadian people. Whether it was given a fair trial is a matter of debate, but that can only be of academic interest now. Bill 320 is a fact. We have a new order. We must meet the new order head on and overcome the problems which it will present. In so doing, we must resist to the full any attempts to "socialize" hospitalization on a national pattern, we must retain our autonomy, and we must accept the responsibility that goes with it at the provincial, at the municipal and at the individual hospital level. We must vigorously oppose any paternalistic attitude for the individual hospital by either the federal government or the provincial government and we must fight with every reasonable resource at our command any influence that would "nationalize" or "provincialize" our medical profession. There must be no companion to Bill 320 entitled "The Medical Practitioners' Services Act", and there will not be if the medical profession so sets its sights.

Bill 320 brings a new era in hospital administration. While the change will hardly be noticed in those provinces which have already had considerable experience in government-supported plans, it will pose problems in those provinces participating for the first time, quite different from those currently encountered.

1. INCIDENCE OF ADMISSIONS

We may expect a greater incidence of admission of inpatients. That has been the experience under other government-supported programs. The factors would be: (1) patients hitherto reluctant to enter hospital because of the cost, unless absolutely essential, will now avail themselves of hospital care, and (2) until such time as effect is given to benefits under outpatient services, we might expect some tendency to enter hospital rather than undergo some inconvenience as an ambulatory patient.

Increased incidence of admissions will put a very great strain upon existing bed facilities and upon the load of the various laboratories.

One of the main problems will be an early understanding and continued prompting that the basic philosophy of the plan is to provide hospitalization for those in need of it for the absolute minimum length of stay, having due regard to good medical care.

The admission of a patient is effected upon the recommendation of his doctor, and so the responsibility of not admitting patients unless the need is essential must rest with the medical profession; as a technique to safeguard this principle there should be a committee of the medical staff charged with the review once monthly of all admissions of the previous month to see that there is no abuse. It is not an easy task for doctors to sit in judgment upon their confrères, but self-government by the medical staff implies acceptance of responsibility as well as of privileges, and the alternative can only be what the profession rightly fears, namely, direction by others.

The admission of one unnecessary case is a disservice to the program. One unnecessary admission multiplied a hundredfold in one hospital and many thousandfold across the country can only increase the cost of the plan to such an extent that there will not be enough money left to provide proper care where it is really needed. More important, the resulting unnecessary work load on hospital staffs would result in short ration of their time to patients who should have the best of care.

2. LENGTH OF STAY

Length of stay may well be a problem. A patient should stay in hospital not one day longer than is absolutely necessary. One part of the problem will be with that group of patients staying over 30 days because care in nursing homes, homes for the aged and facilities for custodial care is not covered under the Act; hence it will impose upon local authorities the responsibility to provide such facilities in order to have the maximum number of beds in general hospitals available for acute needs.

An even more important part of the problem is the danger of increasing the average length of stay of all patients. One day is a short time but an average increase of one day in the length of time

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every patient stays in hospital would increase the cost of the plan by about 10%. Since discharge can only be accomplished upon the order of the doctor, it follows that, as with admissions, the responsibility lies primarily with the medical staff. Once again, the medical staff should have a committee, which may well be the same committee as the one on admissions, which will scrutinize fairly and fearlessly the length of stay of all patients discharged the previous month. The recommendations of this committee on admissions and discharges should be reported forthwith to the medical staff or to its executive, who would have power to act. The function of the administration would be to co-operate with the medical staff and to offer whatever help is necessary to expedite the work of the committee and the implementation of the recommendations of the medical staff. Of necessity, it would see that whatever reports are necessary, such as discharges by service, by doctor, by diagnosis and by length of stay, together with other pertinent information, would be made available to the committee.

3. FACILITIES

There will undoubtedly be need for more beds and ancillary services and this will mean demands for more staff. Unnecessary laboratory tests must be avoided as they are a waste of staff effort, of space and of money. In order that these needs for more facilities may be properly assessed, each hospital should have a representative standing committee to study the changing physical needs of the hospital and how they best can be met. Each province should have an authoritative body charged with the development and execution of a master plan of hospitals to ensure that proper and adequate facilities are located in the right places and that unnecessary duplication and overbuilding are avoided.

4. DRUGS

Drugs are provided under inpatient services but not under outpatient services. There should be a very active pharmacy committee of the medical staff of each hospital charged with the responsibility of seeing that drugs are dispensed with reason. It is a well-known fact that indiscriminate prescription of drugs can be both very costly and even wasteful.

5. CALIBRE OF HOSPITAL SERVICE

Eternal vigilance must be maintained to ensure that, no matter how great the demand for them may be, the calibre of hospital services will always be of the highest.

6. INTERN AND RESIDENCY TRAINING

One serious impact of the program will be felt in hospitals with intern training programs and

more especially in those with residency training in which the public or ward patient has traditionally played a very large role. We do not know at the moment what shift there might be in the proportion of public patients to semi-private patients, or vice versa. Should there be a decrease in the number of public patients, and there may well be, then we must have a hard look at how best we can continue an adequate postgraduate training program for our young doctors. It would seem at the moment that we must do on a general scale what has already been done in some areas, and done for some time with considerable success, namely, the inclusion of both semi-private and private patients in the teaching program, having due regard for the wishes of the individual patient and attending doctor, and for the responsibility of the doctor both at law and to the postgraduate training program. The Act wisely makes no reference to this problem, and the inference is that the problem must be met and solved by the individual hospital. It might be added here that there is considerable merit in making a widespread change from the title "public" or "ward" patient to "staff" patient as more indicative of the fact that such patients are treated by a team of the medical staff.

7. PERSONNEL

Present shortage of personnel in many key areas of hospital work will be aggravated. Hospital administration will need to give particular attention to improve personnel policies so that they will be more in line with those of business and industry, notably with regard to the length of the work week. As a rule, present vacation and sick leave entitlement are satisfactory. The practice of gross salaries will be widespread and the institution of contributory pension and group life insurance plans will be common. Hospitals can hardly continue to stave off participation in the Unemployment Insurance scheme. Coverage of hospital employees by Workmen's Compensation will be the general rule. The trend will be towards more management-employee contractual working arrangements. These changes, which will add considerably to the payroll and hence to the per diem cost of hospitalization, will come about in orderly fashion because they are sound policies and not because someone has suddenly found a bottomless pit of new money.

There will be need to initiate new training programs and strengthen existing ones in order to attract and hold competent personnel in the many branches of hospital work—nurses, nursing assistants, dietitians and medical record librarians, to mention only a few.

8. CONTINUING SUPPORT OF THE PUBLIC

We have been assured by authoritative government officials that there is no intent to interfere with the independence and self-government of hos-

pitals; that hospitals should continue to be governed by their governing boards as heretofore and that with this retention of the privilege of self-government must go the responsibility for the financing of capital expenditures, capital debt and interest thereon, prior debt and depreciation, for if government were to assume all financial responsibility for both operating and capital costs, then government would unquestionably own the hospitals. It follows that capital expenditures will continue to be the joint responsibility of the federal government (in so far as federal construction grants are allowed by law), the provincial government, the municipal government and the corporations and individuals of the community. Each hospital, through a job well done and through a good public relations program to extend and strengthen its importance in the community, must continually keep before the community the thought that even under changed conditions the citizens have a definite obligation to the hospital in this matter of capital needs, as well as the need to support research programs and other special projects. Capital financing of past and future debts is a most serious problem for hospitals and can only be solved by the combined effort of governments at all levels and the community. The need for even stronger, larger and more active women's auxiliaries and a greater army of volunteers is self-evident.

UNIVERSAL HOSPITAL INSURANCE IN AUSTRALIA

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VOLUNTARY prepaid hospital insurance is not new. In fact, in one form or another it has been an adjunct to hospitalization over half a century in almost every country claiming an organized hospital system. However, with remarkably few exceptions hospital insurance has not become a potent force in hospital finance or as a means of bringing to all sections of a community ready access to skilled hospital care. A noteworthy exception is to be found in Australia.

The economic depression of the early thirties was a testing period for governments and for management. It was also a testing period for man's capacity for self-help, particularly in those countries boasting rising living standards. Organized voluntary prepaid hospital insurance in its recognizable form had its genesis in July 1932 in St. Paul, Minnesota and in Sydney, Australia.

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9. ACCOUNTING

There will be many changes in the functions of the accounting department. The present emphasis on billings, credit and collections may be considerably lessened and the worry of accounts receivable will be substantially reduced. On the other hand, a strong statistical department will be needed to take care of the increased volume of statistics and reports, and it is sincerely hoped that both will be kept to an absolute minimum.

Each hospital will have to pay increased attention to the details of its annual budget; budget systems and reports are bound to become more rigid in their application. Comparative cost studies will be essential both to hospitals and to health insurance authorities to support the claims of both parties. All this adds up to some increase in administrative costs.

CONCLUSION

The benefits under the Hospital Insurance and Diagnostic Services Act can be tremendous to the majority of our people, if wisely used; there is also no doubt that unless wisely used the costs of such benefits could soar to such astronomical proportions that they are bound to have some adverse effects on the municipal, provincial and even national economy.

In Canada and the U.S.A., Blue Cross in its contractual relationship with its members and with hospitals provides a means of insuring against the cost of hospitalization. Inflationary trends in the post-war years have resulted in the regular upward review of subscription rates. To Blue Cross there is the spectre of pricing itself out of existence as far as the "better risk" element of members is concerned and the triangular contract arrangement is not conducive to the economic management of hospitals.

This concept of "insurance against the cost" of hospitalization prevailed in Australia until the advent in 1946 of free hospital care for all. Non-profit hospital insurance plans had the wisdom to continue to honour their moral obligation to members by granting an equivalent cash benefit on the occasion of the hospitalization of a member or eligible dependent. The change to the life assurance concept of "insurance against the risk" was successfully accomplished.

Universal free hospital care was brought to an end after a thorough testing over six years. Prepaid hospital insurance was flourishing. The Australian Government in 1952 took the courageous step of registering as "approved organizations"

some 120 non-profit hospital insurance plans measuring up to an arbitrary high standard of administrative efficiency and economic management. These approved organizations were authorized to grant to their members towards the cost of hospitalization an additional benefit provided the hospital adopted an approved scale of charges. Concurrently the continuation of the direct subsidy to State Governments by the Commonwealth Government for hospital maintenance became dependent on the abandonment of the socialized free hospital system. (By mutual agreement during World War II the State Governments surrendered income taxing rights to the Commonwealth Government. This achieved uniformity of taxation and social services.)

The hospital insurance plan in Australia has proved a vital factor in stabilizing hospital finances and has obviated the imposing of a crippling tax burden on the community. Australia has not escaped the inflationary spiral, and to enable hospitals to raise fees and to provide patients with a choice of accommodation, members of hospital insurance plans may elect to undertake higher insurance. Since the beginning of 1958 members prudent enough to undertake additional insurance have become eligible for additional government assistance.

By avoiding government-controlled compulsory insurance and utilizing the existing machinery of non-profit voluntary insurance organizations, considerable administrative economies are achieved. The hospital insurance plans integrate the payment of government hospital benefit with the payment of their own benefits and are reimbursed by the government twice each month. The plans receive no administrative payment or assistance from the government.

Members are encouraged to pay their hospital bills and claim reimbursement to the extent of their insurance cover upon presentation of the receipted bill. They may assign their benefit to the hospital. As hospital charges vary, the hospital insurance is sometimes insufficient. On the other hand, the benefit received by the member may exceed the hospital bill and this acts both as an encouragement to the member to insure at a high level and to the hospital to adopt a sensible scale of charges. An increase in hospital charges does not produce an automatic increase in insurance benefits.

While government benefits paid to members of hospital insurance organizations are not subject to probationary membership periods, the organization benefit itself is conditional and thus the vital incentive to insure is preserved.

Over the five years to June 1957 the percentage of population undertaking voluntary hospital insurance increased from 25% to 61%. As the population itself includes groups of people whose hospital needs are otherwise catered for, such as the

armed services, nurses, inmates of institutions and certain categories of pensioners, it is estimated that over 70% of the insurable population have now insured. The population over this period increased by about one million to 9,600,000.

During the year ended June 30, 1957, members of voluntary hospital and medical insurance plans received the equivalent of \$33,400,000 in hospital benefits and \$29,380,000 in medical benefits. This covered almost the whole of their hospital bills and about 65% of their doctors' bills. Hospital benefits related either in full or in part to 15,800,000 bed-days, and medical benefits related to 13,668,000 medical services. Voluntary medical insurance is almost as popular as hospital insurance and covers the whole field of general practitioner and specialist consultations, surgery, anaesthesia, radiology and pathology. The patient has free choice of doctor and claims his insurance benefit by presenting a receipted itemized account from his doctor.

Members' hospital and medical subscriptions are actuarially related to fixed scheduled benefits provided by the non-profit insurance organizations. Whilst the scheduled benefits have an indirect relationship with hospital and medical charges, hospitals and doctors are free to determine their scale of fees. As a deterrent against possible abuse, a medical benefit cannot exceed 90% of the fee for the relevant service. Insurance subscriptions and the portion of any hospital and medical bills borne by the member are allowable deductions for income tax purposes.

Early in 1951 the leading hospital and medical benefit organizations in all States formed the Blue Cross Association of Australia. The Australian Blue Cross acts as a general co-ordinating body and may be likened to a combination of the American Blue Cross and Blue Shield Commissions. It is recognized by the Australian Government and is represented on the Commonwealth Health Insurance Council appointed to advise the Minister for Health. Over 65% of the people insured for hospital and medical benefits have selected a Blue Cross Plan. The remainder are catered for by friendly societies and industrial schemes. Commerce and industry generally favour Blue Cross, and employee-groups are established in most places of employment.

PATIENT AND PHYSICIAN IN PAKISTAN

The common saying that "Nobody is great to his butler" is equally applicable to patient-physician relationship for "No patient is rich to his doctor". If a medical practitioner is to go by the statements of the patients, then he must have a second profession whereby to maintain himself and his family. — Editorial, *Journal of the Pakistan Medical Association*, 7: 17, 1957.

HEALTH INSURANCE, MATERNITY INSURANCE AND EMPLOYMENT INJURY INSURANCE IN SWEDEN

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IN 1946, the Swedish Parliament passed a Bill for compulsory *health insurance*, but the coming into force of the new Act was postponed mainly for financial reasons. A new government Bill prepared on the basis of the report of a committee of experts was submitted to and adopted by the Parliament in 1953.

The new Act, which has been effective from January 1, 1955, establishes a system of medical care insurance and health benefit insurance. Separate legislation on the supply of free and subsidized drugs within the framework of the new medical care insurance was passed by parliament in 1954. Essential drugs, which in the case of certain illnesses must be used during long periods, are granted free of charge. Other drugs prescribed by a doctor are subject to a rebate of 50% of the cost exceeding 3 kronor (about 60 cents).

The new scheme does not grant maternity and childbirth benefits; special legislation for the latter was passed by Parliament in 1954.

Health insurance is co-ordinated with employment injury insurance, on which a new Act was also passed by Parliament in 1954. According to the Employment Injury Insurance Bill, the national health insurance scheme covers the cost of medical care and sickness benefits for the first 90 days after the contingency occurs, except for certain benefits which are to be borne entirely by the employment injury insurance right from the beginning.

Under the new legislation, insurance for medical care is compulsory for all Swedish citizens aged 16 years or over. Persons who are not Swedish citizens but who are resident and registered in the country are treated as Swedish citizens for the purpose of the Act. Children under the age of 16 are indirectly insured as dependents of their parents. Apart from a few exceptions, mainly persons living in institutions (invalids, mental defectives, prisoners), the insurance covers the whole population resident in Sweden. Persons having an annual income in cash or in kind of at least 1,200 kronor (about \$222) from gainful occupation (a normal income for a worker is 7,000-11,000 kronor a year (\$1282-\$2025)), are insured compulsorily for daily cash benefits. Domestic work performed by the housewife in the home is not considered as gainful occupation in this connection. However, a housewife is in most cases compulsorily insured for sickness benefit even if her income is less than 1,200 kronor a year. There is no upper income limit for liability to insurance.

The insurance refunds 75% of doctors' fees (including doctors' travelling expenses), in so far as these fees do not exceed certain maximum rates. These maximum rates are fixed by the Government, but physicians in private practice are not bound by them. The patient has a free choice of doctor, and the insurance refunds the sum prescribed without regard to the actual fee charged by the doctor. The majority of doctors do not charge more than the rates which would entitle the patient to get 75% of the actual cost refunded by the insurance. The scheme also refunds 75% of the expenses for transport of the patient to and from the doctor's office and from hospital, with the exception of a small amount which has to be borne by the patient himself. The travel cost to hospital is fully repaid to the patient.

The cost of hospitalization is refunded generally at the rates for treatment in a public ward. Most of the hospitals in Sweden are operated by public authorities and the fees charged in public wards—for care as well as operations, medicines, etc.—are relatively low, from 1 to 5 kronor (about 20 cents to 1 dollar) a day. (The average hourly earnings of adult male workers in industry are about 4 kronor, or 80 cents.) The cost of hospitalization is thus, to a great extent, borne by income from public funds.

While other medical benefits are granted without time limit, hospitalization is limited to 730 days for each episode of sickness. For recipients of old age or disability pensions the duration is limited to 90 days.

The insurance scheme may under certain conditions grant the employer compensation for medical care and other health services provided by him.

All persons insured for sickness benefits are granted basic benefit at a uniform rate of 3 kronor (60 cents) daily. In addition, all insured persons having an annual income *from employment* of at least 1,800 kronor (\$333) are insured compulsorily for a supplementary benefit, the rates of which are graded according to income and range in 13 income classes from 1 to 17 kronor (20 cents to \$3.40) daily. The highest income class consists of persons having 14,000 kronor (\$2600) or more annually. The total benefit (basic and supplementary) thus ranges from 3 to 20 kronor (60 cents to \$4.00) daily. This means that gainfully occupied persons receive 65-75% of the suspension of earnings during 90 days. The supplementary benefit is reduced for most classes after 90 days of benefit payment; thus the total benefit will range from 3 to 12 kronor (60 cents to \$2.40) daily from the 91st day onwards.

Insured persons whose income is derived wholly or partly from a gainful occupation other than employment (independent workers, farmers, fishermen, etc.) many insure voluntarily for supplementary sickness benefits at rates corresponding to their income.

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Housewives not compulsorily insured for supplementary sickness benefits may insure voluntarily for a supplementary benefit at prescribed rates. Students and similar persons may on certain conditions insure for both basic and supplementary benefits, the latter at special prescribed rates. A state subsidy to the voluntary insurance amounts to 20% of the sickness benefits paid under this type of insurance.

Sickness benefit is increased by a children's supplement in respect of dependent children at the daily rate of 1 krona (20 cents) for one or two children, 2 kronor (40 cents) for three or four children, and 3 kronor (60 cents) daily for five or more children.

The waiting period for sickness benefit is three days and the maximum duration is 730 days for the same episode of sickness, except for persons eligible for national pensions, for whom the duration is limited to 90 days.

The compulsory *maternity insurance* scheme is co-ordinated with the health insurance. The general principle of the maternity insurance scheme may be said to be that women receive sickness benefits for 90 days in connection with the confinement. Thus, as a cash benefit to employed mothers will be paid at the same rate as under the general health insurance, these mothers receive 65-75% of the loss of earnings during 90 days. All women irrespective of income receive a cash benefit of at least 270 kronor (\$50) at childbirth and free confinement services in hospital or at home.

The local administration of the new health insurance scheme is based on the institutions existing under the former voluntary sickness insurance scheme, which was administered by approved supervisory authority. The approved sickness funds have been converted into public sickness funds.

The new scheme is financed by contributions from insured persons, employers and the State. All insured persons having a taxable income of at least 1,200 kronor (\$222) a year contribute towards the scheme. Persons in receipt of national old age or disability pensions do not contribute to medical care insurance benefits, but have to contribute to the cash benefits in so far as they are gainfully occupied and consequently insured for these benefits. The insured person's contribution is levied together with income tax. Persons receiving only basic benefits have to pay a contribution of about 50 kronor (\$9.50) a year. A mental worker with an annual income of 9,000 kronor (\$1670) pays about 130 kronor (\$24) a year. He is entitled to a daily benefit of 14 kronor (\$2.70).

The employers contribute towards the scheme at the rate of 1.1% of the wage bill.

The total cost of the health insurance scheme, including the drug rebates, is estimated at 740

million kronor (\$128,800,000) for the first year of operation. Of this amount, 44% is expected to be covered by the insured person's contributions, 27% by the employers and 29% by the State.

The new *Employment Injury Insurance Act* was adopted in Sweden on May 14, 1954. The Act, which came into force on January 1, 1955, supersedes the Acts of June 17, 1916, respecting insurance against industrial accidents, and of June 14, 1929, respecting insurance against occupational diseases, as well as the Royal Order of June 11, 1918, respecting the special insurance of fishermen against injuries resulting from accidents.

All persons in public and private employment are compulsorily insured against employment injury. The spouse of the employer is exempted from compulsory insurance, as are close relatives of the employer living in his household, provided they are not insured for sickness benefits under the National Health Insurance Act.

The Act also provides for voluntary insurance against injuries outside employment and for persons not compulsorily insured against employment injuries.

The new Act, like previous legislation, provides for medical care, dental care, hospitalization, transport, pharmaceuticals, prosthetic appliances, etc., and periodical cash benefits in case of temporary and permanent incapacity and for survivors, as well as funeral allowances.

The employment injury insurance scheme is co-ordinated with the national health insurance scheme; the cost of medical care and sickness benefits for the first 90 days after the contingency for persons who are not insured under the health occurred is covered by sickness insurance except insurance scheme, in which case the whole cost is covered by employment injury insurance. Some special benefits such as prosthetic appliances or physiotherapy, which are not normally granted by the health insurance scheme, are borne by the employment injury insurance scheme from the beginning.

The scheme has now been in operation for three years, and certainly there will be some alterations according to experience. The medical profession was opposed to the reform from the beginning. The opposition nowadays is directed to the "desk-work" required because of the amount of different certificates (for outpatients) required by the sick funds. However, the medical profession is not concerned in the cost of hospitalization (inpatients are not charged any doctors' fee), because this part of the scheme is a business transaction between the hospital office and the fund. This is due to the fact that the hospitals in Sweden are financed by the county councils (or six cities outside the jurisdiction of the county councils) with their own taxes.

PSYCHIATRIC SERVICES IN GENERAL HOSPITALS IN CANADA: FIVE YEARS OF DEVELOPMENT, 1951-1956*

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FIVE YEARS AGO, a survey was made of psychiatric services in Canada's general hospitals and the results were reported subsequently in this Journal.⁶ In the intervening years the potentialities of general hospitals in the treatment of the mentally ill have become more widely recognized. Many general and other non-mental hospitals have added psychiatric treatment to their range of services and have provided the necessary additional

The major part of this report, however, deals with services in general hospitals of 100 or more beds, comparing these data with the findings in 1951. Additional information on other types of hospitals is presented separately in another section at the end of this paper.

AVAILABILITY OF PSYCHIATRIC SERVICES IN GENERAL HOSPITALS

Of the 365 hospitals of various types to which the questionnaire was sent, 211 were general hospitals with 100 or more beds. Table I shows their distribution by bed capacity and the number of replies received. It also gives the number and percentage of general hospitals which reported some form of service to psychiatric patients.

In the period between 1951 and 1956, the total number of public general hospitals of 100 or more

TABLE I.—AVAILABILITY OF PSYCHIATRIC SERVICES IN GENERAL HOSPITALS,
100 BEDS AND OVER, BY SIZE OF HOSPITAL, 1951 AND 1956

Size of hospital	Number of hospitals		Number replying		Hospitals reporting some psychiatric services		Hospitals reporting some psychiatric services as percentage of replies	
	1951	1956	1951	1956	1951	1956	1951	1956
500 beds and over.....	25	27	24	26	20	24	83.3	92.3
250-499 beds.....	36	43	31	37	23	32	74.2	86.5
150-249 beds.....	51	71	45	68	19	50	42.2	73.5
100-149 beds.....	54	70	51	66	11	24	21.6	36.4
Total.....	166	211	151	197	73	130	48.3	66.0

facilities. It therefore seemed advisable to assess this development by a new survey that would yield more up-to-date information. This was carried out in the early months of 1957 by the Research and Statistics Division at the request of the Mental Health Division of the Department of National Health and Welfare.

In most respects the new survey followed closely that of 1951 with questions on psychiatric facilities, staff and services available, and the volume of care provided. Additional information was sought on arrangements for the use of psychiatrists' services, but an earlier question on types of treatment was deleted from the new survey. One further change concerned the type of hospitals covered. While the 1951 survey had been limited to general hospitals with a capacity of 100 or more beds, the inquiry was extended this time to include general hospitals, chronic hospitals, tuberculosis sanatoria and federal hospitals with a capacity of 75 beds and over.

In all, 365 questionnaires were distributed as follows: general hospitals (including maternity and children's hospitals) 256; tuberculosis sanatoria 52; chronic hospitals 30; federal hospitals 27. Response was comparable to that of 1951; 332 hospitals replied, which constituted a better than 90% return.

beds increased from 166 to 211, or 27%. However, the proportion of hospitals which reported some psychiatric service grew considerably faster—from 73 hospitals in 1951 to 130 in 1956, an increase of 78%. Expressed as a percentage of replies to the survey questionnaire, 48% of hospitals replying in 1951 reported some form of psychiatric service available; in 1956 the comparable figure was 66%.

As in 1951, the 1956 survey has shown a progressively higher reporting of psychiatric services as the size of general hospitals increased. While somewhat more than a third of the replying hospitals of 100-149 bed category reported some psychiatric service, in the category of 500 beds and over such services were reported by more than 90% of the replying hospitals.

Psychiatric bed allotment.—In 1956 general hospitals of 100 beds and over reported 1040 beds specifically allocated for psychiatric patients. This represents a threefold increase from the 318 beds in 1951. It is, of course, necessary to view this increase in the context of the over-all growth in capacity registered over the same period by the parent hospitals.

As shown in Table II, general hospitals over 100 beds reporting some psychiatric services have increased their total active treatment bed capacity from 25,400 in 1951 to 42,500 in 1956, or by 68%. The proportion of psychiatric beds to the total

*From the Research and Statistics Division, Department of National Health and Welfare.

TABLE II.—PSYCHIATRIC BED ALLOTMENT IN GENERAL HOSPITALS, 100 BEDS AND OVER, BY SIZE OF HOSPITAL, 1951 AND 1956

Size of hospital	Bed capacity hospitals reporting psychiatric services		Psychiatric bed allotment		Percentage allotment	
	1951	1956	1951	1956	1951	1956
500 beds and over.....	12,612	18,672	249	658	2.0	3.5
250-499 beds.....	7,559	11,690	46	296	0.6	2.5
150-249 beds.....	3,389	9,299	6	76	0.2	0.8
100-149 beds.....	1,841	2,870	17	10	0.9	0.3
Total.....	25,401	42,531	318	1,040	1.3	2.4

capacity of parent hospitals has grown from 1.3 to 2.4% during the same period. If the total capacity of all Canadian general hospitals of 100 or more beds were used as the background, the increase of psychiatric beds would be seen as a step from about 0.7 to 1.8%.*

By far the largest portion of the 1040 psychiatric beds in general hospitals was found in the psychiatric units which reported 870 beds, or 84%, while 170 beds were established in hospitals without separate psychiatric wards or sections. About one-fourth of the latter were reported as detention beds.

TABLE III.—CLASSIFICATION OF GENERAL HOSPITALS, 100 BEDS AND OVER, ACCORDING TO TYPE OF PSYCHIATRIC SERVICE, BY SIZE OF HOSPITAL, 1956

Size of hospital	Hospitals reporting psychiatric services	Group I Group II Group III		
500 or more beds....	24	18	4	2
250-499 beds.....	32	8	7	17
150-249 beds.....	50	2	5	43
100-149 beds.....	24	—	1	23
Total.....	130	28	17	85

Types of service.—As shown in Tables III and IV, general hospitals reporting psychiatric services are considered as comprising three broad groups. Following the pattern of classification used in the 1951 survey, Group I consists of hospitals which have an organized clinical service in psychiatry and a separate psychiatric unit. The number of hospitals reporting psychiatric units increased from ten in 1951 to 28 in 1956. Because of their central role in supplying psychiatric services in general

hospitals, psychiatric units will be discussed further in a separate section.

Group II includes 17 hospitals (compared to 16 in 1951) reporting an organized clinical service in psychiatry, but differing from those in Group I in that they do not operate a separate psychiatric unit. All hospitals in this group have full-time, part-time or consultant psychiatrists, with one or more of the other members of the psychiatric team, and some have a specified number of beds set aside for psychiatric patients. The combined allocation for psychiatric patients is 119 beds (see Table IV).

Group III comprises all the remaining hospitals, 85 in number, which provide some service to psychiatric patients but have no organized clinical service in psychiatry. While some hospitals in this group reported limited treatment services, admission was generally for diagnosis, observation or short-term detention. Most of the 51 beds scattered among the hospitals in this group (Table IV) are for detention purposes only.*

Psychiatric staff.—Of the 130 general hospitals of 100 or more beds reporting some form of psychiatric services, 86 hospitals reported some psychiatric staff, as shown in Table V. The individual instances ranged from fully staffed psychiatric units to hospitals with one consultant psychiatrist or with a single psychiatric nurse. In comparison with the 1951 survey, the 1956 figure constituted an increase of 36 hospitals reporting some psychiatric staff.

In 85 of the 86 hospitals with psychiatric staff, the services of a psychiatrist were available. As in 1951, however, less than one-half of these hospitals engaged other psychiatric personnel in addition to a psychiatrist. Table V shows that approximately

*The estimated total rated bed capacity of general hospitals of 100 beds and over was 44,400 in 1951 and 57,600 in 1956.

*In 1951, a further group of seven hospitals offered psychiatric outpatient services but had no inpatient facilities; no hospitals reported this situation in 1956.

TABLE IV.—PSYCHIATRIC BED ALLOCATION IN GENERAL HOSPITALS OF 100 BEDS AND OVER, BY GROUP, 1951 AND 1956

Group of hospitals	Bed capacity of hospitals reporting psychiatric services		Psychiatric bed allotment		Percentage allotment	
	1951	1956	1951	1956	1951	1956
Group I.....	7,789	17,408	255	870	3.3	5.0
Group II.....	7,837	7,711	25	119	0.3	1.5
Group III.....	9,775	17,412	38	51	0.4	0.3
Total.....	25,401	42,531	318	1,040	1.3	2.4

equal numbers of hospitals reported services of either psychiatric nurse, psychologist, social worker or occupational therapist. There were 14 hospitals in which a full psychiatric staff complement was available, including at least one psychiatrist, psychiatric nurse, social worker, psychologist and occupational therapist. Most of the 44 hospitals which reported no psychiatric personnel were those used mainly for temporary detention.

remaining two units are in the 150 to 249 bed group. Two are located in the Atlantic provinces, eight in Quebec, nine in Ontario, three in Saskatchewan, and two each in Manitoba, Alberta and British Columbia. In 24 of the 28 units the bed allotment ranges from 20 to 50 beds—the average capacity being about 30 beds. Beds in the smallest units number from 10 to 15, while the largest unit in a general hospital department of psychiatry is 88 beds.

TABLE V.—GENERAL HOSPITALS OF 100 BEDS AND OVER REPORTING PSYCHIATRIC STAFF, BY GROUP, 1951 AND 1956

Type of psychiatric staff reported	Group I		Group II		Group III		Group IV		Total	
	1951	1956	1951	1956	1951	1956	1951	1956	1951	1956
Psychiatrists (all categories).....	10	28	16	17	15	40	7	—	48	85
Psychiatric nurses.....	8	22	6	8	5	1	1	—	20	31
Social workers.....	7	21	9	10	2	4	2	—	20	35
Psychologists.....	7	22	8	9	3	3	3	—	21	34
Occupational therapists.....	7	21	8	4	2	6	—	—	17	31
Hospitals with some psychiatric staff.....	10	28	16	17	17	41	7	—	50	86
Hospitals with full complement: psychiatrist, psychiatric nurse, social worker, psychologist, occupational therapist.....	4	13	1	1	—	0	—	—	5	14

— not applicable

Unlike 1951, the 1956 survey attempted to gather some information as to the basis on which psychiatrists' services were available to the hospitals, whether full-time, part-time or in a consultant capacity. In the course of the survey, however, it became apparent that the questionnaire left considerable room for interpretation by the replying hospitals, and that the data collected did not necessarily reflect the actual relationship of the psychiatrist to the hospital. Within these limitations, it may be summarized that 24 hospitals were served by psychiatrists on a full-time basis, 25 had part-time arrangements, and 36 had a consultant psychiatrist only. Hospitals with psychiatric units comprised nearly two-thirds of those with full-time staff.

GROUP I HOSPITALS: PSYCHIATRIC UNITS

Twenty-eight hospitals reported separate psychiatric wards or units with an over-all bed allotment of 870 beds. Since 1951, when 10 units were reported with a combined bed capacity of 255, 15 new units have been established;* this development has been stimulated in some measure by the financial support available to psychiatric units under federal and provincial grants. The resulting increase in psychiatric bed allotment from 3.3 to 5.0% of all beds is shown in Table IV.

As shown in Table III, 18 of the 28 units are in hospitals of 500 beds or more; eight are operated by hospitals having from 250 to 499 beds; the

With the exception of one newly established unit, all hospitals with psychiatric units have an organized clinical department of psychiatry. Directing psychiatrists are on full-time staff in 14 units and part-time in 12 others, while the remaining two have consultant staff psychiatrists. The open ward system predominates, operating in 20 of the 28 units. Seven hospitals maintain closed units only, while one hospital has a dual set-up. In most of the hospitals, admission procedure for psychiatric patients is essentially the same as that for general admissions.

Fully organized outpatient services are available in 20 of the 28 units. Five hospitals provide a partial service, while three have no outpatient facilities or services.

Thirteen of the units—about one-half—have a full staff complement consisting of psychiatrist, psychologist, social worker, psychiatric nurse and occupational therapist. Several other units lack but one member of a full psychiatric staff. In Table V it can be seen that the shortage is distributed evenly over the several professional groups.

OUTPATIENT DEPARTMENTS

Psychiatric outpatient services were reported by 55 of the 197 hospitals replying, a somewhat higher percentage than in 1951 when 31 outpatient departments were reported by 151 hospitals. However, nearly triple the number of outpatients was reported under treatment in 1956, the caseload increasing from 6874 to 18,603.

A large majority of the outpatient departments are located in hospitals having organized clinical departments of psychiatry; these included 25 of the 28 psychiatric units and 15 of the 17 hospitals

*Of the three remaining additional units reported in the present survey, one unit in operation in 1951 did not report at that time. A further unit in 1951 was below the minimum allotment of eight beds used to designate a psychiatric ward; a third unit is now being re-established after a period of inactivity.

in Group II. These two groups together admitted over 16,000 outpatients. An additional 2500 outpatients were admitted by fifteen hospitals in Group III. Data derived from 37 hospitals which reported both the number of patients treated and the number of visits indicate an average of 3.9 visits per patient.

Of the 55 psychiatric outpatient departments, 42 provided both diagnosis and treatment; most of the others gave therapy only. All departments were under the direction of a qualified psychiatrist. The services of psychologists were available to outpatients in 24 of the 55 hospitals, a proportion somewhat lower than in 1951. The relative number of hospitals employing social workers (24) remained practically unchanged. Psychiatric nurses and occupational therapists were employed in 16 departments each. This represents a marked drop in the number of departments providing nursing care under qualified clinical supervisors in psychiatry and a somewhat larger proportion providing occupational therapy.

Day hospital service.—Day hospital units are firmly established at the Allan Memorial Institute (the psychiatric teaching hospital at Montreal), and at the Montreal General Hospital. These units function as wards whose special characteristic is that the patients return home each evening; the accommodation is then used as a treatment centre for night patients. Admissions to the Day and Night Centre of the Montreal General Hospital in 1956 totalled 154 and 143 respectively.

VOLUME OF SERVICE

Psychiatric patients under care reported by general hospitals in 1956 totalled 20,102—doubling the number reported in the earlier survey. As shown in Table VI, patients under care in psychiatric units (Group I) numbered 13,414, or about two-thirds of the total, as compared to 5617 or 57% of all patients reported in 1951. The average length of stay reported by 22 psychiatric units was 19.4 days, and closely similar was the average period of care shown by nine hospitals in Group II reporting patient load. In Group III hospitals, which admitted patients mainly for examination or detention, the average length of stay for reporting hospitals was 9.4 days.

Transfers to mental hospitals.—Information on the number of patients transferred from general to mental hospitals, shown in Table VII, is necessarily based on reports of those hospitals providing data on both discharges and transfers. Some 57 hospitals provided such data in 1956, compared to 30 in 1951. In these 57 hospitals approximately 14,800 discharges occurred, of which 1106 were transfers to mental hospitals. The rate of transfers to total discharges was 7.5%, a reduction from the comparable 1951 figure, which was 9.0%. In the 25 psychiatric units reporting transfers, the number of patients requiring further treatment in a

TABLE VI.—PSYCHIATRIC INPATIENTS UNDER CARE IN GENERAL HOSPITALS 100 BEDS OR MORE, 1951 AND 1956

Group of hospitals	Hospitals with inpatient psychiatric services		Hospitals reporting patients under care		Patients under care*	
	1951	1956	1951	1956	1951	1956
Group I....	10	28	10	28	5,617	13,414
Group II....	16	17	12	16	3,024	3,801
Group III...	40	85	15	31	1,282	2,887
Total.....	66	130	37	75	9,923	20,102

* Based on either of the following data: patients at the beginning of the year plus admissions; discharges plus patients remaining in hospital at the end of the year; where neither of these was available, admissions or discharges alone were used as substitute information.

mental hospital was 6.6% of all discharges. This is lower than the over-all rate for 1956, and considerably below the rate of 9.9% in 1951 for the nine psychiatric units then reporting.

Diagnosis of patients under care.—Information on the number of patients under care by broad diagnostic categories is shown in Table VIII, but only 39 hospitals in all three groups reported diagnostic data with sufficient completeness to be included in the tabulation. As in the 1951 survey, the largest number of psychiatric patients in general hospitals were classified as psychoneurotics. Psychotics were second, except for Group II hospitals, while persons with unclassified disorders, epileptics and mentally defective patients occupied the remaining positions in that order. The ratio of psychotic to non-psychotic patients was 32 to 68%; in 1951 the ratio was 27 to 73%.

DATA SPECIAL TO THE 1956 SURVEY

To afford a comparison with the 1951 survey the preceding part has dealt only with data relating to general hospitals of 100 beds and over. This section will discuss briefly the hospitals which the first survey did not include: general hospitals with bed capacity from 75 to 99 beds, chronic hospitals, tuberculosis sanatoria and federal hospitals.

General hospitals of 75-99 bed capacity.—Twenty-eight of the 45 hospitals replying in this size group reported admissions of psychiatric patients, but almost exclusively for temporary care or detention. Only four hospitals provided treatment. Patients under care totalled 183; of this number 46 were transferred later to mental hospitals.

Chronic hospitals.—The questionnaire was distributed to 27 chronic or chronic-convalescent hos-

TABLE VII.—TRANSFERS TO MENTAL HOSPITALS, 1956

Group of hospitals	Hospitals reporting transfers	Discharges including deaths and transfers	Transfers to mental hospitals	Transfers as percentage of discharges
Group I...	25	10,729	713	6.6
Group II...	11	2,439	258	10.6
Group III...	21	1,638	135	8.2
Total.....	57	14,806	1,106	7.5

pitals. Twenty-five hospitals did not admit psychiatric patients, but three reported that the services of a consultant psychiatrist were available for patients who, after admission, were found to be in urgent need of psychiatric care. Two chronic hospitals admitted psychiatric patients for custodial care.

2. The growth of psychiatric services has occurred in all size groups of hospitals. The proportion of hospitals of 250 beds and over reporting psychiatric services rose from 77 to 89%; for those from 100 to 250 beds, the increase was from 32 to 55%.

3. The total reported bed allotment for psychiatric patients increased more than threefold from 318 to

TABLE VIII.—PSYCHIATRIC PATIENTS UNDER CARE*, BY DIAGNOSIS, 1956

	Group I		Group II		Group III		Total	
Number of hospitals reporting patients under care by diagnosis	20		8		11		39	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Psychotics.....	2,509	34.1	276	22.6	294	24.8	3,079	31.5
Psychoneurotics.....	3,446	46.8	511	42.0	459	38.8	4,416	45.2
Defectives.....	183	2.5	24	2.0	66	5.6	273	2.8
Epileptics.....	268	3.6	84	6.9	116	9.8	468	4.8
Others.....	959	13.0	323	26.5	248	21.0	1,530	15.7
Total.....	7,365	100.0	1,218	100.0	1,183	100.0	9,766	100.0

* Total of patients in hospital at the beginning of the year, plus admissions during the year.

Tuberculosis sanatoria.—In 25 sanatoria, about one-half the total number, a consultant psychiatrist is available. Three sanatoria have developed more extensive services including outpatient psychiatric departments or clinics which provide treatment and follow-up services to former sanatorium patients.

Federal hospitals.—All but five of the 23 replies from federal hospitals providing active treatment indicated special services for psychiatric patients.* Seven of the reporting hospitals operate psychiatric units directed by psychiatrists and assisted, in most cases, by a full complement of psychiatric staff. The size of these units varies from 25 to 62 beds. All operate on the open ward system. Outpatient departments are organized in all units; some provide both diagnosis and therapy, others mainly a diagnostic service. Patients under care in 1956 numbered 1970 and the average length of stay per patient was 34.2 days.

Besides the psychiatric units, services are available to inpatients and outpatients in four hospitals under the direction of full-time or part-time staff psychiatrists; two of these hospitals report an organized clinical service. One additional centre has a special day hospital unit for outpatient treatment.

Six federal hospitals admit patients only for temporary detention and care; five others report no service for psychiatric patients.

SUMMARY

1. Between 1951 and 1956 the number of general hospitals with 100 or more beds reporting some form of psychiatric service increased from 73 to 130, a jump from 48 to 66% of all replying hospitals.

*Not included among these were the large units for psychiatric patients at Ste. Anne de Bellevue Hospital, Quebec (571 beds) and Westminster Hospital, London, Ontario (898 beds), which were considered to be mental hospitals.

1040, which now represents 1.8% of the total bed capacity of general hospitals with over 100 beds.

4. The substantial increase in the number of beds in psychiatric units, from 255 to 870, was the main factor in raising psychiatric bed allotment in general hospitals. Of 28 reporting units, 15 were established since 1951.

5. Fifty-five hospitals reported some provision for psychiatric outpatient services, compared to 31 in 1951. The total reported caseload of outpatients increased by about 170% from 6900 in 1951 to 18,600 in 1956.

6. In 1951, a total of 37 hospitals reported approximately 10,000 inpatients under care during the year. In 1956, 75 hospitals reported 20,100 inpatients under care.

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PAYING FOR TODAY'S MEDICINE

I am confident that given the facts, the layman would pay for today's medicine gladly if he knew that a sensible way lies at hand to do so. But at the present time there is an appalling lag of the laity, an appalling distance between the potentialities of Great Medicine and the actual application and use of those potentialities. If a sensible way lies open before us, what is it?

Prepayment on the basis of insurance is the way. If insurance is applicable against the losses of death, which is inevitable, by how much more is insurance applicable against the losses of avoidable disease?—Alan Gregg: *Challenges to Contemporary Medicine*, Columbia University Press, New York, and Oxford University Press, Toronto, 1956, p. 81.

Case Reports

GAS GANGRENE OF THE UTERUS

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GAS GANGRENE is such a rare disease that its interest remains mostly didactic. In the following case, the rapid evolution of the disease did not permit adequate treatment of the patient, after the diagnosis had been established.

A 25-year-old, gravida 2, para 1, white woman was admitted during the night to the emergency clinic of Notre-Dame Hospital with a 12-hour history of abdominal pain and profuse vaginal bleeding. Thirty-six hours before her admission, abortion had been attempted on a 10-weeks' pregnancy. Little is known about the beginning of the disease, the first signs of which appeared 24 hours later. When the patient was first seen, she was drowsy, her skin and conjunctivæ were yellow, the abdomen was distended and painful with marked tympany and rebound tenderness; the pulse was 130 and thready, the blood pressure 132/75 mm. Hg and temperature 99.2° F. An hour later the patient was incoherent and dyspnoic and the pulse imperceptible. There was no pain on abdominal palpation, so that a hard central mass, presumably the uterus, was easily felt. There was a sanguineous and odourless discharge from the vagina. The cervix was closed, without lacerations; the vaginal fornices were bulging with a mass filling the pelvis. The blood count was as follows: red blood cells 1,200,000 per c.mm.; white blood cells 36,000; Hb. 45%; neutrophils 83%; eosinophils 1%; lymphocytes 11%; monocytes 5%. The bladder was catheterized and 75 c.c. of mahogany-coloured urine containing 3 plus albumin was obtained. A flat plate of the abdomen revealed a voluminous mass with a moth-eaten appearance due to the dissociation of the muscle fibres by gas (Fig. 1). Because of the persistence of the peritoneal lines, the possibility of a generalized peritonitis was discarded, but a complete opacity on the right side of the pelvis suggested an abscess or a collection of fluid in the pouch of Douglas. A diagnosis of gas gangrene of the uterus was made and therapy started. The patient's general condition deteriorated rapidly in spite of treatment and she died three and a half hours after admission.

Postmortem examination showed marked putrefaction of all viscera. The uterus, the size of a football, one foot in diameter (25 cm.), was filled with malodorous gas; it still contained the placenta and a putrefied fetus of about three-month size. The kidneys were of an apoplectic black and showed a hæmoglobinuric nephrosis; the liver was pale brown, enlarged, and almost completely destroyed although only four hours had elapsed between death and necropsy. The heart was flabby, the colour of dead leaves as were the main vascular trunks whose intima showed advanced degeneration. Serosanguineous fluid was found in the pericardial and the peritoneal cavities. Blood culture was negative but *Clostridium perfringens* was recovered from the uterine cavity.



Fig. 1

DISCUSSION

The above description is classical for the post-abortion septicæmia caused by *Clostridium perfringens*. In 85% of cases, symptoms appear within 24 hours after instrumentation, sometimes earlier. They commonly start with violent chills, generalized malaise, vomiting and diarrhoea. Fever is only slight, and soon temperature falls below normal with a more rapid pulse than the pyrexia or its absence would explain. A drop in blood pressure soon follows. The most characteristic sign of the syndrome is *icterus*, which appears within a few hours of the onset of symptoms. This icterus has a peculiar bronze shade because of the cyanosis arising from the vascular collapse. Myalgia, neuritis, arthralgia and other signs of hypersensitivity appear. Oliguria and sometimes anuria is present in 95% of the cases; whatever urine is passed is mahogany-coloured. It contains albumin, seldom any red cells, no biliary pigments but increased urobilin. A hyperchromic, microcytic anaemia is constant and there is a daily drop of some 300,000 to 600,000 in the red cell count. The blood picture also shows leukocytosis of 20,000 to 40,000 and a thrombocytopenia in 50% of cases. The serum is brilliant red because of the hæmoglobin. The serum bilirubin is elevated between 25 and 50 mg. % with progressive uræmia.

Usually two successive stages of the disease can be differentiated: (1) an ictero-hæmolytic stage of 5 to 8 days' duration; (2) a hepato-renal stage, characterized by uræmia and often ending in death.

In acute cases, the two stages overlap or are simultaneous, as in that described above. Mahn

and Dantuono¹ reported a mortality of 73% in the 75 cases they observed.

INCIDENCE

As we mentioned previously, gas gangrene is a rarity. According to Altemeier and Furste,² it occurs in 1.76% of cases of trauma, with the following distribution: lower limbs, 47.5%; upper limbs, 22.6%; trunk and genitalia, 16.3%; head and neck, 2.3%.

In uterine involvement, some authors in New York report an incidence of one in 781 cases of abortion, others in Chile report one case in 307, and still others in Melbourne, Australia, one in 100. *Clostridium welchii* is not a usual host of the genital tract, but it occurs as a saprophyte of the vagina in 4.5 to 8.7% of cases. An incidence of 35% was reported from a series of abortions with a benign course. That gas gangrene does not occur more frequently may be explained by the usual absence of the two essential factors for its development, namely, the presence of necrotic tissue and an impairment to the circulation of blood in the infected area.

BACTERIOLOGY

There are many species of clostridia and they are also found in association with other bacteria. *Clostridium welchii* and *Clostridium oedematiens* are responsible for 60% to 80% of all cases of gas gangrene.

Clostridium welchii is commonly found in dust, soil, wool, fur, silk, and the gastro-intestinal and genital tracts. It produces a large amount of gases and toxins, some of which are hæmolytic.

PATHOLOGY

Symptoms in gas gangrene result from the action of the bacterial toxins: the hæmoglobinuric icterus, resulting from the hæmolytic toxin; necrosis of the blood vessels, renal and hepatic epithelium, from the action of the necrotizing toxin; disruption of the nervous system which may be the cause of death within 24 hours from the neurotoxin, and a myotoxin responsible for muscle pains. All these toxins inhibit the phagocytic action of leukocytes. Furthermore, it seems that from the destruction of tissues by bacteria, a new toxin is formed whose action is not neutralized by the gas gangrene antitoxin and this toxin would contribute to part of the clinical picture. The same phenomenon would explain the "crush syndrome". The outstanding characteristic of the morbid anatomy in gas gangrene is the parenchymatous degeneration and rapid postmortem necrosis of all organs generally, and more particularly the liver, kidney, heart, spleen and uterus. Bacteria are found more often in lymph than in muscle and they spread through loose connective tissue along fascial planes. When anatomical barriers stop their progress, oedema is

formed which finally impairs circulation and brings about necrosis of the barriers. It is important to remember that infection usually extends further than clinical symptoms would suggest.

Postabortal or postpartum gangrene may take different forms: (1) fetal emphysema, when infection is limited to the fetus; (2) localized infection of the uterus either as endometritis or as physometra when the uterus becomes distended with gas (this last condition is usually fatal even when hysterectomy is performed); (3) a parametritis which afterwards extends to the peritoneum; (4) blood-borne infection either as bacteræmia when the only positive signs are fever and a positive blood culture; or as a septicæmia with its dramatic clinical picture, rapid progress, severe anæmia, renal failure; or as metastatic gas gangrene with or without septicæmia.

DIAGNOSIS

The diagnosis is made from:

1. The clinical history.
2. Bacterial identification, which is possible within 24 hours. It must be remembered though that clostridia, being anaerobic, do not live long in the blood and the disease may exist in the presence of a negative blood culture. Furthermore, after antibiotics have been given, clostridia disappear from the vagina.
3. Radiographs, especially serial ones. The amount of gas, increasing with time, and its linear distribution rule out mechanical causes.

Differential diagnosis includes: (a) Anaerobic cellulitis which invades connective tissue but does not involve muscle. In this case, the onset is gradual and does not affect the general condition of the patient to the same extent as does gas gangrene. (b) Streptococcal myositis, which is similar to gas gangrene but is not gas-producing. (c) Streptococcal gangrene, which attacks subcutaneous tissues from which the hæmolytic streptococcus can easily be isolated. (d) Acute gangrenous staphylococcal infections. (e) Gaseous infiltration, non-bacterial in origin. It should be stressed that gas gangrene must be suspected in every case of postabortal anuria.

TREATMENT

The principles of treatment are fourfold.

1. *Antibiotics*.—They must be given as soon as the diagnosis is made in order to prolong life by localizing the infection. Sulfonamides and streptomycin are of no value. The antibiotic of choice, because of its low toxicity, is penicillin and doses up to 10,000,000 units per day intravenously are advisable. It seems that its efficacy grows with the dose. Some physicians use it in association with aureomycin and chloramphenicol.

2. *Antitoxin*.—Its theoretical effects have never been confirmed in practice. Commercially available antitoxin is the polyvalent type and contains:

<i>Cl. welchii</i>	10,000 units
<i>Cl. septicum</i>	10,000 units
<i>Cl. histolyticum</i>	3,000 units
<i>Cl. novyi</i>	1,500 units
<i>Cl. oedematiens</i>	1,500 units
(Lederle's formula)	

For acutely ill patients, the recommended dose is 4 vials stat. and 2 vials every six hours thereafter. The total amount given is usually 10 to 20 vials. Other authors recommend 200,000 units daily for four to six days. Care must be exercised during its administration in order to detect any sign of anaphylaxis caused by the horse serum.

3. *Surgery*.—Without surgery, discontinuation of penicillin is followed by an extension of the disease. If the general condition of the patient permits it, a curettage must be done. Hysterectomy should be performed only when the uterine wall itself is damaged. It is sometimes recommended that the uterus be packed with cotton soaked in hydrogen peroxide or zinc peroxide. The operation must be done in the patient's room.

4. General supportive measures for maintaining the patient's general condition and preventing renal failure should be instituted, the object being to carry the patient through the period of anuria, until the epithelium of the proximal convoluted tubule is regenerated. In spite of the anaemia, transfusions are not recommended as this blood would be subject to haemolysis to the same extent as the patient's own, and thus would merely aggravate the situation.

PROGNOSIS

Chances of recovery are inversely proportional to the time elapsed between the appearance of the first symptoms and the onset of therapy. Prognosis depends also on the virulence of the bacteria involved. It is usually good if the urinary output does not fall below 500 c.c. per day.

More cases reaching the anuric phase may be encountered in the future because penicillin may limit the infection and permit the patient to survive the early phase.

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REDUCED RAILWAY FARES

Arrangements have been completed with the Canadian Passenger Association to permit members and their families to obtain reduced railway fares in travelling to and from the meetings of the C.M.A. and/or affiliated medical societies in Halifax, N.S., and St. Andrews, N.B., next month. For details see page 448 of the March 15 issue.

Special Article

THE PRESENT STATUS OF THE TREATMENT AND THE DIAGNOSIS OF CANCER OF THE BREAST*

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LOCAL AND REGIONAL treatment of breast cancer does not prevent or postpone death from breast cancer in any material proportion of cases, if at all, and early treatment is little, if any, superior to later treatment in this regard. The evidence for that statement has already been presented *ad nauseam* but *ex necessitate*; it will not be repeated here. But, in brief, it is based primarily on the trends of recorded age-specific mortality from breast cancer, below old age, in the past 30-35 years; those trends are nearly level in spite of strenuous efforts to control that mortality and nearly uniform from place to place in spite of wide differences in those efforts, in the provision of facilities and services and personnel and financial resources, and in the extent of shift to earlier, more and more extensive treatment. Any departures that there are from the general levels do not coincide with control efforts; some are demonstrably attributable to changes in book-keeping. When critically considered along with other pertinent data, including crucial findings from the anatomical, clinical and pathological fields, this evidence appeared and still appears to warrant the conclusion that the efforts to control mortality failed—and, it follows, failed because most, if not all, *lethal* breast cancer spreads remotely via the blood stream before the lesion is detectable. And, as will be noted later, clinical and pathological studies have shown indubitably that microscopy does not differentiate accurately between lethal and non-lethal cancers, and between different degrees of lethality. The inability to so differentiate has allowed the inclusion for treatment as lethal cancer of varying proportions of non-lethal and very lowly lethal lesions. This inclusion has yielded fictitious increases in survival rates and thus explains the otherwise inexplicable incongruity between, on the one hand, the stability of the recorded mortality and, on the other, progressively greater accessibility and use of medical and particularly specialist services and progressively higher survival rates reported over the years from many clinics. It explains, too, the otherwise inexplicably wide differences between survival rates of different clinics and other inconsistencies, as

*Diagnosis naturally should precede treatment, but as much of what is now known of diagnosis has been learned through treatment, consideration of treatment status precedes that of diagnosis in this note.

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This is part of one of four symposia presented under the auspices of the Allan Blair Memorial Clinic (Saskatchewan Cancer Commission), sponsored by the Saskatchewan Division of the Canadian Cancer Society and approved by the College of Physicians and Surgeons of Saskatchewan, marking the silver anniversary of the inauguration of cancer clinics in Saskatchewan, Regina, May 17-19, 1956.

will be noted on page 783, in breast cancer data.¹ Such inconsistencies are the red lights on the road.

The evidence alluded to and the conclusions that follow from it, if 2 and 2 make 4, have sometimes been challenged. For example, Delarue,^{2,3} with the unqualified commendation of Janes,⁴ adjudged the case not proven. But, later, he frankly and graciously admitted error and says, "With the inexorable passage of the years one cannot fail to accept the fact that these statistics do not lie nor are they misleading."⁵ And Janes had *already* admitted that, "... when one examines the over-all result of radical mastectomy one is rather chagrined to find that it is true that we probably have not increased by more than 10% [of all cases treated] the 5-year survival rate [over that in untreated]."⁷ As will be noted on page 784, his calculation of increase in the 5-year survival rate through radical mastectomy is based on a comparison of highly questionable validity.

More recently Dr. Ralston Paterson, in his Gordon Richards Memorial Lecture, says, "This is not the place to discuss his [McKinnon's] various theses—each of which I believe to be false—but they may be summarized by saying that he proves early treatment to have no value. Taken to the only logical conclusion this line of argument can only mean that treatment at any time has no value. Wisely, however, in the last paragraph, he runs away from the logic of his own argument."⁸ But, belief, mere belief, the very bane and constant hazard of medicine and public health, an effectual obstacle to truth and a ready means of self-deception, hardly suffices to offset hard-cored, consistent and thus seemingly incontrovertible evidence. Just a century ago, when dogmatic authority denied the contagiousness of typhoid fever, Wm. Budd replied: "It is a truism to remark that questions like these must be decided, not by authority, but by evidence. Tried by this test, it will not be difficult to show that the dogma to which the Board of Health and the Royal College have given their *imprimatur*, is directly opposed to fact, and can only be temporarily upheld by that concurrence of fashion with the influence of great names, whose power in perpetuating popular fallacies led Socrates, more than two thousand years ago, with characteristic love of paradox, to say that 'opinion is stronger than truth'."⁹ The words are appropriate

here. But, in fact, Dr. Paterson, in the same lecture, contradicts himself by pointing out, from another source, both the validity and the importance of one of the "theses" in which he had disavowed belief: " 'Early', as currently used," he properly emphasizes, "is a measure of extent, not of time." By extent he does not mean merely size, which Kreyberg and Christiansen have shown to be *not* a reliable basis for prognosis,¹⁰ but rather he means biological development (infiltration, spread etc.). "Early", as used, being thus an indication of state and not of time, it surely follows that the stage of a cancer is more an indication of its type than of its duration. The lack of correlation between the duration of cancer and stage was clearly demonstrated and recognized many years ago. It is the neglect of that well-established disparity that has caused much of the confusion and fallacy in work and thought and propaganda on cancer in the past 30-40 years. And, indeed, Dr. Paterson's rejection of all the "theses" is distinctly at variance with his own words in 1942: "Nothing medicine has done so far," he said, "has had the least visible effect on cancer death-rates. . . . If we found that we could alter the vital statistics in this disease, we would know that the methods had been successful."¹¹ The intervening years have yielded no sound evidence to warrant the apparent change in Dr. Paterson's attitude. Rather the contrary. His charge that "... he runs away from the logic of his own argument" merely reflects an erroneous interpretation of the writer's expressed view that treatment and early treatment are still justified because treatment can give mental and physical relief and thus achieve one of the highest objectives of medicine, can give healed lesions in place of sloughing sores, and early treatment may possibly be of advantage in preventing death *in an occasional case*. (Today's evidence does not permit any more precise appraisal of the value of treatment.)

THE ATTITUDE OF THE PROFESSION TODAY

In spite of challenges cited and even in them there is to be noted some change in the attitude of the profession. The assurance that, eight or nine years ago, could affirm, "We know what we are doing and we are curing lots of them [breast cancer]; if we were not, we would not be treating them" has softened and even given place to caution and hope, the latter based still, as will be noted later, on the false premises of tradition and on invalid comparison of survival rates. Delarue⁵ and Janes,⁷ as quoted, exemplify increasing recognition of the fact that treatment has not achieved what it was thought to have achieved. Paterson⁸ exemplifies an increasing recognition of the fact that "early" does not mean what it was erroneously made to mean and that consequently chronologically early treatment does not hold the great possibilities formerly claimed for it. However, faith and hope in local and regional treatment still hold fairly firm. Even supra-radical mastectomy is advocated—and advocated even in spite of the clear-cut findings of Williams, Murley and Curwen¹² that drastic differences in treatment did not give any differences between survival rates and that neither glandular

*Rather unfortunately Dr. Delarue accepts, too, as "confirmatory" evidence of their validity, the absence of any "significant" fall in the age-adjusted death rates from breast cancer, Canada, 1941-1953, as presented by Phillips and Owchar.⁽⁶⁾ As the trends of age-adjusted rates give only an inadequate and sometimes a misleading impression of the actual situation they do not provide a reliable basis for time comparisons. Dr. Delarue says, too, "It is interesting to note that a slight trend towards improvement is apparent in these figures. If continued at its present rate for another ten years this improvement would then become statistically significant. Whether this would necessarily represent the results of treatment or of other factors as yet unrecognized is impossible to predict." But no "slight" trend towards improvement is apparent even in the inadequate figures (the age-adjusted rates) to which he specifically refers.⁽⁶⁾ On the contrary, the slope is upward. And even if these rates had shown a decrease, and even if the decrease were continued in the next decade, and even if it were of "statistically significant" extent, it would not be of real significance as an indication of a reduction in mortality until it was shown not to be the result of artifact. Thus, neither does the confirmatory evidence strengthen the case nor the qualification detract from it.

involvement left behind by treatment nor local recurrences following treatment added materially to mortality.

In regard to *diagnosis and prognosis*, the isolated observations of earlier date showing the limitations of microscopy have been amply confirmed by more recent studies of which the literature shows increasing recognition. Highly important among those studies is that of Professor L. Kreyberg, of the Institute for General and Experimental Pathology, University of Oslo. He concludes: "If we examine the means to diagnose a carcinoma still in Stage I, we will discover that such a diagnosis can with a reasonable certainty be made only after a retrospective clinical survey, lasting some 15 to 20 years" and "The analysis further shows that we have no criteria enabling an immediate 'early diagnosis', in the sense required".¹³ Those words need neither clarification, elaboration nor qualification. They fully conform with and embody the conclusions implicit, but seldom so definitely stated, in other studies which already have received some recognition. For instance, in presenting the changing concepts in the treatment of cancer, Dr. J. E. Dunphy, Clinical Professor of Surgery, Harvard Medical School, says: "Until more accurate means of appraising the biological propensities of a particular tumor become available, the answer can only be 'by conservative judgment opposed to rashness', and "The same emphasis that is placed upon the factor of time must also be given to a better understanding of the complex biologic nature of this disease, particularly the wide variations in growth patterns, the great disparity in behaviour of different tumors and of the same tumor in different locations and the possible role of natural defenses arising within the host."¹⁴ The J. A. M. A., already quoted,¹ has reversed its previous stand and says editorially: "In view of the absence of a complete, acceptable explanation for the prolonged survival rate of some patients afflicted with cancer, there is need to be cautious in estimating the survival rate of patients when offering a prognosis to patients and their families. Furthermore, prolonged and sometimes unexplained periods of survival after a diagnosis of cancer reveal how some so-called treatments are accorded at least temporary support."¹⁵ Dr. Edward F. Lewison of the Breast Clinic Division of the Tumor Clinic, Johns Hopkins Hospital and the Johns Hopkins University, for long a serious student of breast cancer who has closely followed his patients and meticulously studied and restudied and compared their clinical findings, histopathology and subsequent history over the years, says "Each factor of prognosis is merely a straw in a wistful wind. . . . Thus, prognosis is unpredictable. . . . In the dilemma of prognosis, currents and cross currents of biologic behaviour flow beneath the surface of unpredictable clinical speculation. The measure of these forces and their influence on survival cannot as yet be calculated with exactitude", and, "With true humility we must confess that despite prompt and adequate treatment, we do not know precisely which individual patient will be favored by fortune and granted a long survival." (He also says: "Certainly the cardinal concept of early diagnosis and early treatment well done cannot help but

contribute toward this hope and expectation.")¹⁶ And the realization that many breast cancers, "proven" microscopically, would not kill, if untreated, is further quickened by Franks's clear demonstration in the Imperial Cancer Research Fund Laboratories, Royal College of Surgeons, England,^{17, 18} that symptomless, non-progressive, "latent carcinomas" indistinguishable microscopically from progressive lethal cancer, are to be found in the prostates of about one-third of men in their fifties and sixties and in an even higher proportion at older ages. He has shown that while remote metastases are found in the majority of patients dying from prostatic cancer, they are found very uncommonly in patients dying from some other condition but showing clinically quiescent prostatic "cancers", some involving the regional lymph glands and even invading the blood stream. While the breast does not permit such complete examination as Franks and others to whom he refers have made of prostates, there is, as intimated here, substantial indirect evidence that "latent" non-progressive cancers occur in the breast as in the prostate and some other sites. As Franks has emphasized, the host probably plays a most important but as yet undefined part in determining latency or progression and possibly a part, too, in the histopathology and cytology of the lesion. The host factors are not adequately revealed through microscopy.

FAILURE TO REALIZE THE IMPLICATIONS OF THE LIMITATIONS OF MICROSCOPY

Although the limitations of microscopy in the diagnosis and prognosis of breast cancer are becoming recognized to some extent, it is quite apparent that the implications of those limitations have not yet received their due consideration. This is evident in the advocacy of self-examination in the hope of much saving of life through earlier diagnosis and treatment of a much larger proportion of breast cancers. In view of the limitations of microscopy this carries, as well foretold by Bloodgood,¹ the high probability of a greatly increased intake of non-lethal lesions, indistinguishable microscopically from progressive breast cancer, while the possible saving of life cannot be, on the evidence of today, more than very small, if any. Lack of consideration of the limitations of microscopy is evident also in the continued presentation and comparison of survival rates of series or parts of series of different time or place. For instance, the Toronto General Hospital clinic reports a lower 5-year survival rate (33.6%) in patients treated from 1937 to 1947¹⁹ than in patients treated in an earlier period, 1933-1941, in whom the rate was 43%.²⁰ And the same clinic recently reported a 42% 5-year survival rate in Stage IV cases² and 40% in "advanced cases."⁷ Another clinic reports an increase in survival rates from 39.7% in 1910-1914 to 62.4% in 1940-1944.²¹ The Hopkins clinic reports a 29% 5-year survival rate in ward patients treated by radical mastectomy from 1932 to 1942 and a higher rate (43%) (38% clinical cure rate) in all female patients with primary breast cancer treated at Hopkins

from 1935 to 1940.²² One clinic reports decreasing 5-year survival rates with increasing pretreatment durations (for a period) in patients of 1915-1934 but no such pattern of decrease in patients of 1935-1942.²³ The Toronto clinic reports 11%¹⁹ and 16%²⁰ in Stage I in its two series covering all durations, another clinic reports about 50%,²¹ and other clinics report Stage I forming only 40% to 50% in cancers of allegedly very short durations of less than 1 month or 6 weeks.¹ The inconsistencies and incongruities, the red lights, in these data are obvious. The decrease in the 5-year survival rate in recent years in the Toronto General Hospital clinic clashes with the increase over the years in another clinic. The survival rate in a large series covering all types, stages and durations in the Toronto clinic clashes with the higher survival rate in Stage IV and in "advanced" cases in the same clinic. The lack of any decrease in 5-year survival rates with increasing pretreatment durations, as reported by Haagensen and Stout,²³ clashes with their previous finding of a decrease. The 11% and 16% in Stage I in the two Toronto series covering all durations clash with the 50% in another clinic and this clashes again with the 40-50% in Stage I in cancers of very short durations. Nor are all these inconsistencies attributable to chance fluctuations in small numbers (consideration of this factor is not always apparent), or to difference in follow-up of patients or in the calculations. But it is good to have these data with all their inconsistencies so freely reported. They reveal the chaos on which faith and hope in treatment have been, and for the most part still are, based and perpetuated. They add to the welter of such inconsistencies in breast cancer data and which *per se* point indubitably, and in some demonstrably, to the incomparability of the material from which they are derived and, therefore, to the fallacy in comparisons of the survival rates, etc. As comparability of lethal propensity of series or parts of series is a prerequisite for valid comparison of survival rates, and as the limitations of microscopy preclude the possibility of establishing comparability of lethal propensity, differences between the survival rates cited or between these and others, including those in patients with untreated lethal cancer, do not provide reliable evidence of the value of treatment. It is evident, too, from the higher survival rate in the earlier series than in the more recent of the Toronto clinic, that similarity of material is not ensured even with the continued microscopy of one pathologist of the highest calibre—the late Dr. W. L. Robinson, who, as the years passed, became ever more acutely conscious of the limitations of microscopy in revealing biological or lethal propensities of tumours.

With comparisons of survival rates invalidated by the inability to differentiate adequately between non-progressive and progressive lesions and between different degrees of lethality, it is mainly to the records of vital statistics, but with the due regard for all their weaknesses, that one must turn for assessment of results, gross though such assessment be, and to comparison of results in cases of the same time and place subjected to different

treatment as shown by Williams, Murley and Curwen.¹²

EXCESS OF CASES OVER DEATHS

In 1951 there were 612 deaths charged to breast cancer (female) in Ontario.²⁴ The Hospital Morbidity Study²⁵ showed 1664 cases under treatment (discharges and deaths) in the public general hospitals in that year, a number far in excess of the number charged to cancer of any other site—male or female. While some breast cancer patients have multiple admissions, it is very doubtful that they contribute any large part of the excess of treated cases over deaths in the province. Most of the excess of cases is probably attributable to the inclusion, now unavoidable, of non-progressive lesions as lethal cancer. When such cases are presented, investigation and treatment cannot be refused although the nature of what is treated cannot be definitely established or the chance of preventing or postponing death be more than conjectural and, at best, small. The contrast between the great numbers attending public cancer clinics in provinces with aggressive control programs and the very small numbers in provinces lacking such programs suggests, at least, that concern on the part of the public for treatment has contributed to the increasing demands for hospital beds and, thereby, to the increasing costs of medical care, irrespective of who pays for it.

SUMMARY

Consistent evidence from all fields has shown that local and regional treatment, however early, fails to control mortality from breast cancer, and that microscopy fails to reveal, dependably, the biologic, metastatic, or lethal potentialities of many lesions with a cancer architecture.

The nature of that evidence is indicated.

Challenges to the evidence are dealt with.

The literature shows some increasing recognition of the limitations of both diagnosis (microscopy) and treatment but less realization of what is implicit in those limitations. The failure to realize the implications of the limitations is evident in the advocacy of supra-radical mastectomy, in the advocacy of self-examination as a means of early detection, and in the continued comparison of survival rates derived from material the comparability of which cannot be established even by grading and staging.

The nearly 3 to 1 ratio of $\frac{\text{patients treated for}}{\text{deaths from}}$ breast cancer in Ontario is probably attributable to the inclusion, now unavoidable, of many non-progressive lesions as lethal cancer. It is suggested that the public concern engendered by cancer "control" programs has contributed to the increasing demands for hospital beds and, thereby, to the increasing costs of medical care.

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run in by continuous drip over a period of one and a half to two hours. He may read, rest, or sleep during the proceedings. Most patients doze or fall asleep. He is roused in time for lunch and subsequently may proceed home or engage in day hospital activities during the afternoon.

The nursing service to the severely anxious patient is important. If the patient regresses to a more juvenile level of performance and becomes very demanding upon those around him, a nurse in attendance not only assists with the procedural aspects of the nursing care but also recognizes the need to meet demands at face value the first day or two. Subsequently she looks for ways of having the patient do more for himself, while avoiding any critical attitudes or expressions. The doctor in attendance upon the patient starts the intravenous drip so as to reinforce the personal aspect of the support given.

During the year, 334 separate treatments were given:

- 18 patients received 1 to 5 treatments.
- 15 patients received 6 to 10 treatments.
- 6 patients received 11 to 15 treatments.
- 4 patients received 16 to 25 treatments.

SHORT COMMUNICATION

INTRAVENOUS CHLORPROMAZINE

F. E. McNAIR, M.D., Burnaby, B.C.

THE USE OF intravenous chlorpromazine* as an aid to allaying acute anxiety is reported here after one year's experience. All the patients reported were referred by a physician for psychiatric consultation at the Mental Health Centre, which is a provincially operated adult outpatient psychiatric clinic and day hospital. Since this clinic has had no waiting list during the period of time under study, many of the patients seen were in the acute phases of their disorder. During the calendar year 1957, 617 patients were seen in consultation at the Mental Health Centre, 359 of whom were taken under treatment. All patients taken in treatment participated voluntarily and were responsible enough to live in the community, however severe their symptoms. Treatment plans for all patients were screened at an intake conference before therapy was commenced. Forty-two patients, 11 men and 31 women, were given intravenous chlorpromazine (Largactil) treatment according to the method outlined below. For these patients the relief of anxiety was an urgent matter. The various techniques for reducing tension, including rest, prescription of oral barbiturates or tranquillizers, and self-medication with alcohol, were proving ineffective and hospitalization was being contemplated.

The patient comes to the Centre at 8.30 in the morning, having had his breakfast. He lies in bed and is given intravenously 500 c.c. of 5% dextrose to which has been added the chlorpromazine. The solution is

The effectiveness of the treatment could be gauged in the first five trials. Some of the patients broke off treatment during this period. In other cases, the treatment was discontinued in favour of some other method, which included the oral use of the drug alone. The results were satisfactory in 24 cases. Treatment was discontinued by the doctor in 11 cases, and the patient withdrew from treatment in 7 cases.

Various diagnostic categories were represented, including anxiety reaction, acute situational reaction, agitated depression, hypomania, and even acute schizophrenic reaction where the individual was fighting hard to maintain his identity in the face of recently developed hallucinations.

In the situational disorders this treatment was effective in itself. In other cases it was supplemented and eventually supplanted by oral medication and individual or group psychotherapy. At times the patient was brought into day hospital for group approaches to treatment.

The question may be raised why this method was chosen instead of oral medication. It has been our experience that 1/6 to 1/10 the oral dosage is effective when administered intravenously. Furthermore, it is effective the same day. The dosages employed have ranged from 5 mg. to 350 mg. daily, but as we have had more experience with this route of administration, we have tended to confine our dosage range from 10 to 75 mg. Because it is effective in most instances on the first day, it is acceptable to patients who have so much anxiety that they both vacillate and resist treatment.

*The chlorpromazine used was purchased from Poulenc Limited, supplied in ampoules of 2 c.c., strength 25 mg. per c.c.

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(Information regarding contributions and advertising will be found on the second page following the reading material.)

MEDICINE AND THE MASS MEDIA

By and large, the Victorian and Edwardian physician hated all journalists and refused to have anything to do with them. No doubt he had his reasons. The day of the science writer had not yet arrived, and the standards of the daily press were not such as to encourage relationships with a learned profession. The ban which the physician laid on the more sensational press was unfortunately too often extended to the more responsible elements, and in consequence we find newspapers of repute such as *The Times* of London abusing the august British Medical Association on the occasion of its Montreal meeting in 1897 as a vast amorphous mass which had never done anything for the good of mankind.

Old customs die hard, and it may be that the old and sweeping prejudice against journalists still remains from sheer force of habit, and has been extended to the other mass media of communication. But there are signs that this old attitude of distrust and hatred is being replaced by a more liberal spirit in many western countries. Thus, participants in the recent C.M.A. Public Relations Workshop on April 18 and 19 in Toronto spent an interesting evening with representatives of the press and the radio and television, when in a free-for-all discussion both sides spoke frankly of their difficulties in relation to each other. The physicians said some hard things about the press, and the press said some hard things about the medical profession, but in the end both sides must have come to see the need for closer collaboration in the interests of our mutual client, the general public.

This meeting was very much in line with events which have happened in other western countries. A good example of an effective working relationship between the mass media and the medical profession comes from France, where the medical press of France has formed a committee together with the science writers of Paris and other journalists in charge of medical matters in the daily press, in order to raise the level of medical reporting. This committee meets every couple of months, and oftener if some need exists. Our

French colleagues feel that this has proved a most effective step in reducing the number of medical news items with sensational titles, the number of errors, and the number of medical fantasies published in the daily press. In addition, the French medical press has organized in conjunction with science writers a telephone service for immediate information. The list of physicians with their specialties has been sent to all the important newspapers, and journalists may now check information received from abroad by telephoning persons on this list. Again, this has proved the means of often stopping publication of misleading information or amplifying partially correct statements.

In Germany and in Austria, organized medicine has also been active in providing the press with an information service, not only on scientific questions but also on matters of ethics, legal medicine and medical economics. Radio stations such as Radio Vienna now have a proper medical consultant, who is a medical journalist.

In Britain, unfortunately, relationships have recently been strained between the British Broadcasting Corporation and the British Medical Association. Those who follow the *British Medical Journal* will know that an acrimonious controversy has developed since February over a television series entitled "Your Life in Their Hands". The British Medical Association accuses the B.B.C. of having indulged in sensationalism, for example, in wishing to televise live operations, and also expresses its regret at the repeated failures of the Association to establish a proper liaison with the Corporation. The matter was fully debated in the Council of the B.M.A., and in this debate and in the letters to the editor which followed it, opinions on both sides were freely expressed. Some felt that the intrusion of the TV camera into the operating-room was an intervention between the doctor and his patient not to be tolerated. Others recounted the cases of "television syncope" which overworked GPs had to treat on nights when the series were telecast. On the other hand, some members saw no harm in the telecasts, pointed out the tremendous educational power of the radio and television, and emphasized that a treatment recently discussed on the radio was often more readily accepted by the patient than an unknown treatment. One correspondent stressed the solace and comfort brought to many patients by the realization of the great care and skill and kindness available in hospitals. Another irate physician even went so far as to accuse the B.M.A. of trying to preserve the mysteries of medicine, and suggested that it be renamed the Black Magic Association.

When tempers flare in a debate of this kind, it is usually found that the solution lies somewhere between the two opposing points of view. It may well be that we in Canada have a satisfactory formula to reconcile the warring factions. The "Code of Co-operation" for the guidance of physicians and those working in the news media seems

to offer a reasonable compromise, and to lay a foundation on which satisfactory collaboration in the health education of the public can be built.

At the Public Relations Workshop to which we have already referred, the participants once again emphasized the need for all Canadian physicians to adhere as strictly as possible to this Code. It outlines a set of self-imposed principles of conduct. To sum up the matter, a sentence from the introduction to the Code cannot be bettered: "Recognition and understanding of the self-imposed principles of conduct, an intelligent interpretation of them, and an honest desire to develop a sound basis for co-operation are the prerequisites for amicable and constructive medical-press relations."

Editorial Comments

HIGH AND LOW COST GROUPS IN A PREPAID MEDICAL PLAN

Some think that in any prepaid medical care plan there is a group of persons who cost the plan inordinately high sums of money because of their repeated recourse to medical care. Some statistical findings by Dr. Harding LeRiche* do not support this belief—at any rate as regards the population covered by a comprehensive medical, surgical and obstetrical plan in Ontario. LeRiche studied the same sample of 3000 subscribers, or 7682 participants, enrolled in the comprehensive plans of Physicians' Services Incorporated, which he has used for other statistical studies. For the year 1954, he divided his sample arbitrarily into two groups, the high cost group, comprising all those persons who cost the plan \$60.00 or more in the year under review, and the low cost group, which included all the rest of the sample. The high cost group came to only 611 persons (13.54% of all those taken ill that year, or 10.97% of all participants in the sample). This small percentage of all participants had cost the plan 52% of its funds, and their illnesses and other services were analyzed in detail.

When from the statistics a profile of the expensive diseases and conditions in this high cost group was drawn, it was found that the group contained an excessive number of both male and female young adults in the range 20-45 years. There was also a slight excess of older people (50 years and over) in the high cost group, but not as many as might have been expected. The author notes that the age group 20-45 years represents the childbearing period, and that therefore obstetric services were a costly item; also a considerable proportion of these patients required gynaecological surgery. As might be expected in this age group, there was a high incidence of appendicitis, and also of repair of inguinal herniae

in males. Peptic ulcer was important in the high cost group; it received mainly medical treatment. Neurological disorders and major ophthalmic surgery were expensive items, especially for older people, but otitis media still remains a high cost item in younger persons. Haemorrhoids and varicose veins cost the plan substantial sums, followed in this category of circulatory disorders by degenerative heart disease. Fractures and other accidental injuries were costly; so were various arthritic and rheumatic conditions, psychoneuroses, diabetes, thyroid disease, asthma and obesity. Severe upper respiratory conditions were more common in the high cost group, but the difference in terms of actual episodes of illness was not so great.

It is interesting to note that the low cost group cost the plan more for tonsillectomy. Individually, the fee for the operation was not high, but because of its frequency in the group, the larger low cost group made substantial inroads on funds. This was also true of circumcision.

When the high and low cost groups were analyzed for services and disease episodes, it was found that the high cost group required considerably more services per disease episode, in addition to having more disease episodes themselves.

It was rather surprising to find that the heading "vague symptoms" was eighth on the list of frequency of conditions in the high cost group and seventh in the low cost group.

The figures obtained in this analysis would of course not be true of an entire geographical population, since this particular prepaid plan contains a high proportion of relatively healthy younger wage-earners and their families, but the study does dispel the idea that there is a small and costly percentage of the subscribers who demand a relatively large amount of the plan's funds by continually seeking attention.

CALGARY HISTORICAL BULLETIN*

We learn with great regret that the *Historical Bulletin*, issued quarterly by the Calgary Associate Clinic for a continuous period of 22 years, has ceased publication. Although in general the important journals in medicine tend to be produced by large organizations and published in large cities, there has always been a place for certain periodicals coming from smaller centres and possessing a flavour all of their own. Often the continued viability of such a periodical has depended on the energy and resources of one person. We are sure that those physicians from Calgary and the rest of Western Canada who have helped to keep the *Historical Bulletin* going will be the first to agree that, in the present instance, the moving spirit has been that erudite physician and historian, Dr. Earle P. Scarlett. In his valedictory editorial Dr. Scarlett remarks, "To some members of the medical tribes what has been written in these pages has been

*A Special Study on High and Low Cost Groups in a Canadian Pre-paid Medical Care Plan. By the Research and Statistics Department of Physicians' Services Incorporated, under the direction of Harding LeRiche. Physicians' Services Incorporated, Toronto, 1958.

*See also Men and Books, page 792.

foolishness, and to others 'a stumbling-block'. To still others it may even have caused an acute fibrillation of the ligament of Treitz." We doubt, however, that there are many who come into this category; in any case, the dynamics of their intraperitoneal folds need not concern us greatly. It is certain that many lovers of history and the liberal arts have derived much pleasure and instruction from the periodical so ably edited by Dr. Scarlett.

When the *Canadian Journal of Surgery* began publication, it was generally agreed that it should contain a section in which the history of Canadian surgery should be recorded, for there is a very real danger that the exploits of our colourful fore-runners may be lost in the general hurly-burly of Canadian life. But this of course only covers one of the aspects of medicine. The present time is perhaps a suitable one to remind our amateur historians that the *Canadian Medical Association Journal* is always glad of the opportunity of recording worthwhile pieces of Canadian medical history. We cannot hope to replace in this respect the *Historical Bulletin*, for the latter was unique, but we can perhaps preserve against loss certain great figures and events in Canadian medical history.

PREVENTION OF THE COMMON COLD

The common cold is now generally considered to be due to a number of filtrable viruses. The role of the so-called "basal flora" in the production of symptoms in this disease is not quite clear but they are thought to act as secondary invaders. Cold vaccines have in the past been tried with varied results, probably because of lack of specificity. Attempts to diminish the incidence of colds in large factories, where absenteeism due to colds is a problem, and in army units have sometimes been crowned by initial success which was not reproduced in subsequent trials. The multitude of preventive measures speaks against their efficacy, and yet every remedy must have enjoyed a temporary measure of success. This strongly indicates that suggestion can influence the course of the common cold; it also emphasizes the difficulty of assessing the value of any measure undertaken in its prevention or cure.

Two recent articles by J. M. Ritchie,¹ Director of the Public Health Laboratory, Birkenhead, England, deserve special mention not only because of his carefully conducted studies, but also because of his courage in suggesting to the by now sceptical profession the value of an autogenous vaccine and of chemotherapy in the prevention and treatment of infection secondary to the common cold.

Of 184 volunteers observed in the winter of 1955-56, 109 received weekly injections of autogenous vaccine prepared from their pharyngeal flora. The remaining 75 served as controls and were given injections of carbol saline. The controls had 5 times as many colds within the period of observation as had those vaccinated. The rate of

absence from work was also greater in the controls than in the treated group.

Acting on the same supposition that the distressing symptoms in the later stages of a cold were due not to the virus but the patient's own pharyngeal bacteria, Ritchie carried out antibiotic treatment in a group of 919 volunteers. After testing their bacterial flora for sensitivity, he prepared appropriate antibiotic lozenges containing 15 mg. of tetracycline, oxytetracycline or aureomycin and gave each person a small supply with instructions to take two a day for 2-3 days at the first sign of a cold. Some 581 persons received antibiotic lozenges and 338 received an inert lozenge which was indistinguishable from it. In the treated group, 4% developed full colds whereas in the controls the incidence of colds was 26%. Ritchie concludes that short-term antibiotic therapy could cut down drastically the effects of the common cold, and that it should not be difficult to organize this treatment in industrial enterprises with a medical staff. The main difficulty to overcome is the danger of sensitivity reactions. In spite of the small dosage employed there were some volunteers who complained of a sore tongue and stinging in the throat for a considerable time. Significantly, there were no such reactions at a boarding school where vitamins are amply provided in the diet, and it is possible that a polyvitamin capsule taken daily during the 2-3 days of treatment might prevent this untoward reaction. Many are convinced that autogenous vaccines reduce susceptibility to colds in some people. As these injections are as a rule given to people who are unusually susceptible, the results obtained are all the more striking. It is possible that the failure of others to obtain the same good results reported by Ritchie has been due to faulty technique in preparing the vaccines and in carrying out the injections.

W. GROBIN

REFERENCE

1. RITCHIE, J. M.: *Lancet*, 1: 615, 618, 1958.

DIETARY TREATMENT OF PHENYLKETONURIA

Since phenylketonuria was first described, many reports have appeared concerning this state of metabolic error in which the liver does not contain the enzyme phenylalanine hydroxylase necessary to convert phenylalanine to tyrosine. Rapidly progressive and severe intellectual deterioration is an accompaniment. Affected children are normal at birth, but signs of mental deficiency generally appear at about six months of age, and by twelve months the idiot level may have been reached. There now seems little doubt that this is due to intoxication by phenylalanine or one of its metabolites.

A most encouraging report, which serves as a striking example of the growing importance of biochemistry in this field, entitled *The dietary*

treatment of phenylketonuria, has just been published by Woolf and his colleagues.* Woolf and Vulliamy originally suggested that mental deficiency associated with phenylketonuria might be relieved by feeding a diet low in phenylalanine, and Woolf was actually the first to devise an economically practicable diet based on a charcoal-treated casein hydrolysate. The diet described in the present article is fundamentally the same as before, the main additions or deletions being reduction in the intake of cow's milk with compensatory increase of casein hydrolysate, and the addition of methionine. In earlier cases the intake of phenylalanine, in the form of milk protein, was reduced until phenylpyruvic acid was no longer detectable in the urine. However, as this still left abnormally high levels of phenylalanine in blood and urine, the daily intake of cow's milk was reduced until these levels were the same as in normal children. Methionine was incorporated as an additional source of sulphur since hydrolysis and charcoal treatment of casein removes cystine, and methionine can replace cystine but not the reverse. In every instance diet was controlled by repeated chemical investigation of blood and urine. Paper chromatography was employed to ensure a proper concentration of phenylalanine compared with other amino acids; too low a level was associated with an unsatisfactory rate of growth whilst too high a level was reflected in a falling intelligence quotient.

The authors describe the treatment of their three original patients, now followed up for a further 32 months, and seven additional patients who have been on treatment for periods of from 11 to 34 months. The age at commencement of the special diet varies from five weeks to just over five years. Almost every case showed a sharp rise in I.Q. when treatment started, and in some instances the rise was continuous, amounting to as much as 20 points in two years. It was, however, clear that the younger the child and the less marked the initial deterioration, as measured by the I.Q., the greater the likelihood of progressive improvement.

The suggestion is made that the lowering of I.Q. in phenylketonuria is due to two factors, the immediate effect of intoxication and an irreversible component. The latter represents the time lost at a vital period during which the phenylketonuric child is in a toxic state, and while the normal child is acquiring its first knowledge of itself and its environment. Since it is possible that the neural mechanisms necessary for these earlier phases of learning normally undergo changes that render them less available later, this may explain the impaired ability to learn shown by phenylketonurics even after they have emerged from their toxic state.

For these reasons it is strongly recommended that every phenylketonuric child be treated early, and to this end the authors advocate that the urine of all children should be tested at the age of 21

days and treatment commenced immediately if the reaction is positive.

ROBERT GIBSON

EXACERBATION OF BREAST CANCER AFTER ENDOCRINE SURGERY

In a recent editorial in the *British Medical Journal*, the writer points out that surgical and radiological treatment of carcinoma of the breast has not changed materially in the last 50 years.¹ Whilst there are some differences in methods and marked improvement in technique, the sequence is essentially the same, i.e. mastectomy followed by radiation. Radiotherapy alone is given when the growth is too far advanced for operation, and in this group hormone therapy has been of great value in prolonging life and relieving pain. Androsterone in premenopausal and menopausal women and oestrogen in postmenopausal women have been used successfully in many cases. As a last resort oophorectomy, adrenalectomy and hypophysectomy have been used and are said to have achieved brilliant results in about one-third of the patients.

According to Wilson *et al.*,² patients with skeletal metastases but without soft tissue disease appear to obtain the best response from endocrine therapy and endocrine gland surgery. By measuring urinary calcium excretion on a low calcium intake they are able to determine the tumour activity in the presence of osteolytic metastases. They have also developed oestrogen stimulation and cortisone suppression tests to determine which tumours are hormone-stimulated. They report four cases in which exacerbation of the disease followed soon after extirpation of endocrine glands (ovaries in three cases and adrenals in one case). With the help of the abovementioned tests they were able to satisfy themselves that this was not just failure to respond to treatment but true exacerbation. All four patients had tumours which were hormone-stimulated according to the authors' criteria. They believe that this sudden acceleration of growth may have been due to release of pituitary activity, previously held in check by small amounts of circulating oestrogens. The failure of hypophysectomy to reverse the picture in the fourth case and its very transient beneficial effect in two of the other cases are thought to be the result of the tumour's excessive activity, which could no longer be checked by changing the hormonal environment. To guard against this sudden stimulation of disease the authors are now using cortisone before and for three months after oophorectomy with the hope of suppressing adrenal oestrogen production. There is at present no way of predicting which tumours will respond to oophorectomy with acceleration of growth, and it is too early to evaluate the efficacy of cortisone administration in these cases.

REFERENCES

1. Editorial: *Brit. M. J.*, 1: 269, 1958.
2. WILSON, R. E., JESSIMAN, A. G. AND MOORE, F. D.: *New England J. Med.*, 258: 312, 1958.

*WOOLF, L. I. *et al.*: *Arch. Dis. Childhood*, 33: 167, 1958.

Medical News in brief**INTERNAL MAMMARY ARTERY
LIGATION FOR CORONARY
INSUFFICIENCY**

Ligation of the internal mammary arteries has been advocated as a beneficial method of treatment for coronary insufficiency. Four cases in which this ligation was carried out are reported in detail by Adams (*New England J. Med.*, 258: 113, 1958). No objective evidence of improvement could be found in any patient. Objective evidence of progressive myocardial damage was found in all patients in follow-up after operation. One patient died within four months. Three patients experienced subjective improvement but good evidence is presented to show that this was due to diminished physical activity combined with psychological factors.

Experimental work on fresh cadavers failed to demonstrate any improvement in coronary blood flow following occlusion of the internal mammary arteries. The author is of the opinion that internal mammary artery ligation is not indicated in the treatment of coronary artery insufficiency.

**BLOOD GROUPS AND
PEPTIC ULCER**

For several years reports have been appearing about the relationship between blood groups and peptic ulcer and it has been found that there is a marked excess of blood group O among patients with peptic ulcer. Furthermore this excess is among duodenal ulcer patients, particularly those requiring operation. In a recent study Wallace and his colleagues (*Scottish M. J.*, 3: 105, 1958) examined the saliva of peptic ulcer patients of Groups A, B, and AB for the presence of blood group substances. When compared with appropriate controls, it was shown that there was a significant increase in the number of patients with peptic ulcer who were non-secretors, i.e. whose saliva did not contain blood group substances. This increase was statistically significant in the case of persons with duodenal ulcers submitted to operation—that is, the more severe cases. The authors suggest that mucopolysaccharides which contain the blood group substances have a protective action on the mucosa of the stomach and duodenum. They also indicate that secretor status could be used in the prognosis of peptic ulcer, and that the absence of blood group substance from the saliva would be yet another indication for operation.

**PREDNISONE IN THE TREATMENT
OF ADDISON'S DISEASE**

Contrary to reports by others, Heni (*Deutsche med. Wchnschr.*, 83: 485, 1958) found prednisone unsatisfactory as the sole replacement therapy in Addison's disease. In three cases of complete adrenal failure 15 mg. of prednisone daily did not prevent the development of marked disturbances in electrolytes, parti-

cularly hyperkalaemia. Three grams of NaCl daily improved the clinical condition but did not alter the hyperkalaemia. It is suggested that prednisone should be given in combination with DOCA or fluorohydrocortisone. The suppressing effect on the pituitary is a further deterrent to its prolonged use, even in milder cases of adrenal insufficiency, as there is always a hope that ACTH stimulation may restore some of the function of the remaining adrenal cortex.

**CURE OF LARGE SARCOMAS
WITH NITROGEN-OXIDE MUSTARD**

It had been previously shown by Druckrey of Freiburg, Germany, that the therapeutic range of a chemical agent can be considerably increased if it is administered in an inactive or so-called "transport" form. This principle has been applied successfully in the case of carcinoma of the prostate in man by the administration of stilboestrol diphosphate, which though in itself not cytostatic or cytotoxic becomes converted by the highly active acid phosphatase in the prostate into effective stilboestrol.

On the same principle, nitrogen oxide mustard (bis-[β -chloroethyl]-methylamine oxide), which is non-toxic and can be given orally, was found to have no cytostatic action in doses much higher than those of nitrogen mustard. In tissue cultures it was shown that at 5° C. the drug was completely inactive even in extremely high concentration, but when the temperature was raised to 37° C. its toxic effect rose 3000-fold. Furthermore, N-oxide mustard was found to be 40 times less effective on normal cells in rats than N mustard. Rats inoculated with cells from ascitic fluid associated with Yoshida sarcoma were allowed by Druckrey *et al.* to develop tumours of up to 40 g. in weight. They were then given 20 mg. per kg. of N-oxide mustard on four successive days. This dose, which is about 40% of the LD 50, was well tolerated and produced remarkable regression of most tumours. Five out of nine rats thus treated were completely cured and remained well until death at the end of their normal lifespan of 18 months. In a second series treatment was begun when the tumour had reached 20 g. in weight, thus constituting about 10% of the rat's body weight. The dosage of N-oxide mustard was reduced to four doses of 10 mg. per kg. on successive days and all the 18 rats thus treated recovered completely within a few days. This experiment was repeated twice and the results were almost the same even when the dosage was reduced to four doses of 5 mg. per kg. Tables, diagrams and photographs demonstrate the striking results when compared with controls. There was no evidence of toxic damage to the treated rats which, on later observation, proved to be perfectly well and capable of reproduction and had a normal life span. To produce a cure in only one-quarter of the animals with nitrogen mustard required the highest tolerated dosage of 0.3 mg. per kg. and was accompanied by severe toxic effects. By using the above principles the authors have every hope of producing combined forms of chemotherapeutic agents of even broader therapeutic range.—H. DRUCKREY *et al.*: *Deutsche med. Wchnschr.*, 83: 489, 1958.

(Continued on advertising page 44)

MEDICAL FILMS

CONTINUING the listing of available films on medical and related subjects, we list below additional films. The films on Anatomy are held in the National Medical and Biological Film Library and are distributed by the Canadian Film Institute, 142 Sparks Street, Ottawa, Ontario. The evaluations have been prepared by Canadian specialists in the subjects of the films, under the Medical Committee of the Scientific Division of the Canadian Film Institute, which is headed by Dr. G. H. Ettinger.

ANATOMY

The Time of Human Ovulation—1948; Silent; Colour; 19 minutes.

Produced by Edmond J. Farris, Wistar Institute of Anatomy and Biology, Philadelphia.

Description.—A record-instructional film, demonstrating a new biological test for the time of ovulation, and indicating its possibilities. The test, based upon pituitary hormones which appear in the urine, is shown carried out on female Wistar rats which are injected subcutaneously with 2 c.c. of urine and killed two hours later, when the ovaries are examined for a colour change. Interpretation of the various findings is discussed. Ovulation predictions are found to be in agreement with other indirect and direct proof of ovulation time.

Appraisal (1949).—This is one of the technically beautiful films one now expects from the Wistar Institute. Dr. Farris's new technique is presented in a convincing fashion except for the actual visualization of hyperæmic ovaries. It is largely static and the material might well have been presented as a filmstrip. The film is recommended for use at the preclinical medical school level on account of the teaching help in sexual physiology, as well as for any interested graduate or undergraduate medical audience or scientific audience.

Availability.—National Medical and Biological Film Library (\$2.00). For purchase apply to Dr. Edmond J. Farris, Wistar Institute of Anatomy and Biology, Woodland Avenue and 36th Street, Philadelphia 4, Pa.

A Technic for Counting Motile Spermatozoa—1947; Silent; B & W; 11 minutes.

Produced by Edmond J. Farris, Wistar Institute of Anatomy and Biology, Philadelphia.

Description.—A record-instructional-training film, demonstrating a technique for counting motile spermatozoa in an ejaculate. The film employs motion-picture photography through the phase microscope. Characteristics of normal sperm are pointed out, and abnormal sperm cells which occur in greater numbers in the semen of infertile men are shown. Types of motility of active sperm are contrasted with sluggish and oscillating motions of those of infertile men. The technique for counting motile sperm cells is described and demonstrated.

Appraisal (1949).—An excellent demonstration, not only of the technique but also of the advantages of phase microscopy and of the fine anatomy of the sperm cell. Highly recommended for use at the pre-clinical level, and suitable for other interested medical audiences and medical technicians. Inappropriate for other groups.

Availability.—National Medical and Biological Film Library (\$1.50). For purchase apply to Dr. Edmond J. Farris, Wistar Institute of Anatomy and Biology, Woodland Avenue and 36th Street, Philadelphia 4, Pa.

Mitosis and Meiosis—1956; Sound; Colour; 15 minutes.

Produced by the Audio-Visual Center, Indiana University. Technical Advisers: Harold T. Brodie, Ph.D., Shelby D. Gerking, Ph.D., and Leland S. McClung, Ph.D.

Description.—An instructional film, illustrating the processes of mitosis and meiosis. The film employs static diagrams, phase-contrast ciné-photomicrography and time lapse. It first explains the various changes occurring during mitosis. Photomicrograph stills are used to show the ap-

pearance of the various phases; then the continuous process is seen occurring. Meiosis is dealt with by diagram and by phase-contrast of the process as seen in the cells of the testis of the grasshopper. The significance of the difference between the two types of cell division is explained.

Appraisal (1957).—A very clear description of the processes. The "losses" which occur in the egg cell process of meiosis are not mentioned, but otherwise there are no errors and the film is up to date. Recommended for biology classes in college or university, for specialists in the subject and for adult audiences interested in science.

Availability.—National Medical and Biological Film Library (\$4.00). For purchase apply to the Canadian Film Institute, 142 Sparks Street, Ottawa, Ontario.

Reproduction Among Mammals—1937; Sound; B & W; 11 minutes.

Produced by Erpi Classroom Films (now Encyclopædia Britannica Films Inc.). Technical Adviser: Dr. H. H. Strandskov, University of Chicago.

Description.—An instructional film, illustrating reproduction in the domestic pig, from fertilization of eggs to birth. Animation, dissection and ciné-photomicrography are used to illustrate gross anatomy, the process of fertilization, development of an amphibian egg through cleavage, blastulation and gastrulation, early development of the nervous system in embryo, role of the placenta, various stages of development of embryo, and uterine contractions at birth.

Appraisal (1945).—A good film for use at the senior high school and college level, and for interested scientific audiences. Treatment of the subject is rather too elementary for medical students, but should have value in schools of nursing. Very good animation.

Availability.—National Medical and Biological Film Library (\$1.50). Purchase (in Canada) from General Films Limited, 1534-13th Avenue, Regina, Sask.

MISCELLANEOUS

The Doctor Defendant—1958; B & W.

Medico-legal advice for Canadian physicians on professional liability is given in this new film, produced by The Wm. S. Merrell Company and endorsed for distribution in Canada by the Canadian Medical Association and the Canadian Bar Association.

The commentator tells the audience: "When a member of the medical profession accepts the responsibility and undertakes the treatment and the patient submits to his direction and treatment accordingly, the medical man owes a duty to the patient to use diligence, care, knowledge, skill and caution in administering the treatment. In undertaking such treatment, the doctor undertakes to bring to the exercise of the treatment a reasonable degree of care and skill. He is not an insurer. He does not undertake that he will perform a cure nor does he undertake to use the highest possible degree of skill."

"To emphasize: What is required of each individual member of the profession is that he brings to the treatment of the patient a fair, reasonable and competent degree of skill. It is for the courts to say whether the injury complained of was occasioned by the want of such care and skill on the part of the doctor, and the court's decision in each case will depend on the facts of that case."

Physicians and attorneys may obtain the film at no charge by writing to: The Wm. S. Merrell Company, St. Thomas, Ont.

The Technique of Intramuscular Injection.

A 35-mm. colour film strip made up of 24 single frames for still projection. A printed commentary supplied with it may be used by the lecturer as the strip is projected. A description of the technique is offered in plain elementary language, showing the type of needle to be used, selection of the proper area for injection, drawing of the skin and release of tension in order to eradicate needle tract. Suitable for medical students and nurses. The film strip is available on request from Benger Laboratories, 20 Spadina Road, Toronto, Ont.

(To be continued)

Men and Books

THE CALGARY ASSOCIATE CLINIC HISTORICAL BULLETIN

H. E. MacDERMOT, M.D.,
Montreal

IT IS SAD to have to record the passing of *The Historical Bulletin* of the Calgary Associate Clinic. When it was started 22 years ago its originators had in mind what Hilaire Belloc calls the "large intention" of helping to keep alive traditions in medicine which preserve for our profession the things that are more excellent; and how it set about this was one of the secrets of the Bulletin's success. Was it to be by direct evangelism, by subtle propaganda, by simple historical record? None of these was lacking, if one thinks of evangelism as strongly expressed sincerity; of propaganda as the spread of good ideas; and of history in its most varied form.

But these things needed to be balanced, and much of the success with which this was achieved must be ascribed to the editorship of Dr. Earle P. Scarlett. Such terms of reference as may have been set for *The Bulletin* must have been generous, to say the least. Medical history, as Dr. Scarlett saw it at any rate, spreads very widely sheltering wings, and if at times *The Bulletin* strayed beyond even these there was always extenuation. Medical history is still history, and it should touch and be touched by a wide range of interests and events. How richly such a setting adorns the plainer professional picture.

This is the service done for us by *The Bulletin*. In every issue Dr. Scarlett gathered from his constant and discriminating reading some of the magic of literature, and always with a strong vein of humour. Without this *The Bulletin* might still have been admirable, but it would not have been so delightful, or indeed so stimulating.

In the strictly historical sense the approach of *The Bulletin* was willingly admitted to have been that of the amateur—in the finer meaning of the word. But it was more than mere diversion. It meant effort and struggle for ideals. In Dr. Scarlett's own reflective comment: "It is still worth-while trying to do something about the things you believe in, however small the audience, or disappointing the results. . . . Traditions have to be re-formulated, thought about, lived with and lived into. Great achievements need more than a little comfortable homage from us."

However, that is in retrospect. Begun as an outlet for the material of medico-historical meetings of the Calgary Associate Clinic, *The Bulletin* could easily have remained as a praiseworthy but still obscure local effort. But within a period long enough for maturity (22 years) it made a place for itself in the national field and even beyond that, yet still maintained an atmosphere entirely distinctive of its locale.

The Bulletin has preserved in its pages pictures of pioneering medical life in the mid-west which are of priceless value in Canadian medical history. Quite early it began a series on *Medical Pioneers in Alberta*. If ever anything was drawn from original sources it was these sketches. The dominant figure in supplying

and collecting this material was Dr. G. D. Stanley, one of the founders of the Clinic and himself a pioneer unsurpassed. The following quotation from his remarks on this corner of medical history give some idea of his characteristic directness:

"We were always taught that history is divided into two portions—Ancient and Modern. Hence, this column is presumed to be an inquiry into the practice of medicine in Alberta.

"The Book of Genesis is the only extant work which claims authority respecting prehistoric man. This column has never tried to compete in prehistoric research, although some of its subjects have been ancient—the writer for instance—very ancient indeed, but definitely never prehistoric!

"In our sketches and in our 'Unforgettable Incidents' the historians may have presented numerous inaccuracies historically, and critics may have smiled at our errors, but frankly, we were more concerned in having possessed such imagination that real men of a past generation had been recalled and had breathed into our readers the spirit of the time in which they lived.

"It is hoped that the column has reproduced in some measure this spirit of the past, the colouring, the flesh and blood of the older generations."

However raw the professional medical historian of the future may find this material, he will be passing over much warm vitality if he disregards these sketches:

Lean penury within that pen doth dwell
That to his subject lends not some small glory.

Dr. Stanley was the perfect co-editor with Dr. Scarlett. The citation prepared by Dr. Scarlett on the occasion of Dr. Stanley's receiving an Honorary Membership in the Alberta Division of the Canadian Association is a fine tribute to a fine man, neither laboured nor sententious, and never losing sight of the irrepressible nature of his subject. "It would be easier," it begins, "to pack a prairie blizzard into a hat box than to compress George Douglas Stanley into the compass of a few sentences." And later on, "But always he himself is the best story of all."

To look through the full series of *The Bulletin* is to be made to feel that it was an expression of energy in a large and lively family, with all the vigour and love of fun that should be in a large family. It gradually drew in many contributors from outside, but it never lost its refreshingly characteristic quality. Time took its toll of the men who founded it, but not before they had left an example in medical journalism which will not easily be equalled.

SURGICAL OPERATIONS ON THE SUPERIOR MESENTERIC ARTERY

In describing three cases in which the superior mesenteric artery was successfully operated upon, Kleitsch and his colleagues point out (*A.M.A. Arch. Surg.*, 75: 752, 1957) that vascular surgery has now reached the stage in which this is possible. Embolectomy was performed in one case of heart failure with auricular fibrillation and mesenteric embolism. Endarterectomy and thrombectomy of an aneurysm with artery reconstruction was accomplished in a second case. A bullet wound of the superior mesenteric artery was repaired by a segmental resection in the third patient. Prompt diagnosis and laparotomy is a necessity in such cases, because vascular surgery after gangrene has developed is useless.

NINETY-FIRST ANNUAL MEETING Canadian Medical Association

HALIFAX, JUNE 16-20, 1958

PROGRAM

CLINICAL PROGRAM IN COLOUR TELEVISION

Monday, June 16

9.00 to 10.00 a.m.

Pulmonary Lesion—Diagnosis

DR. C. A. GORDON and group

10.00 to 11.00 a.m.

Lobectomy

DR. V. O. MADER

1.30 to 2.15 p.m.

Diagnostic Methods in the Evaluation of Patients for Cardiac Surgery

DR. D. L. ROY
DR. S. J. SHANE
DR. F. G. DOLAN

2.15 to 2.45 p.m.

Neurosurgery (Subject to be announced later)

DR. W. D. STEVENSON
DR. H. H. TUCKER

2.45 to 3.15 p.m.

Fracture Clinic

DR. B. F. MILLER
DR. J. C. ACKER

3.15 to 3.45 p.m.

Diagnosis and Treatment of Torn Knee Cartilage

DR. B. K. COADY

Tuesday, June 17

9.00 to 10.00 a.m.

Inguinal Herniorrhaphy

DR. E. F. ROSS
DR. J. K. PURVES

10.15 to 11.15 a.m.

Retropubic Prostatectomy

DR. C. L. GOSSE
DR. F. G. MACK

1.30 to 2.30 p.m.

Radical Neck Dissection

DR. G. W. BETHUNE
DR. J. A. MYRDEN

2.30 to 3.00 p.m.

The Diagnostic and Therapeutic Use of Radioactive Iodine in Thyroid Disease

DR. W. I. MORRIS
DR. J. E. STAPLETON

3.00 to 3.30 p.m.

Corrective Treatment for Low Back Pain

DR. J. A. NOBLE
DR. G. J. H. COLWELL

Wednesday, June 18

9.00 to 10.00 a.m.

(1) Vaginal Examination
(2) Conization of Cervix

DR. H. B. ATLEE
DR. CARL TUPPER

10.00 to 11.00 a.m.

Dermatological Clinic

DR. D. R. HOWELL
DR. J. D. MCLEAN
DR. H. I. GOLDBERG

SCIENTIFIC PROGRAM

Wednesday, June 18

SESSION A

9.00 a.m. - 12.00 noon

V.G. Nurses' Residence
Auditorium

Chairman: DR. H. O. TONNING, Saint John

Familial Hypercholesteræmia

DR. J. L. GURAVICH, Saint John

The Relative Frequency and Management of Certain Endocrine Problems

DR. IAN RUSTED, St. John's

Needle Biopsy—Liver

DR. H. H. MACKINNON, Fredericton

SESSION A

2.30 - 5.00 p.m.

V.G. Nurses' Residence
Auditorium

Chairman: DR. R. G. LEA, Charlottetown

The Late Results of Mitral Commissurotomy

DR. W. F. GREENWOOD, Toronto

The Diagnosis and Management of the Malabsorption Syndrome

DR. LENNOX BELL, Winnipeg

Moles and Malignant Melanomas: Their Origin and Their Management

DR. GEORGE S. WILLIAMSON, Ottawa

The Treatment of the Anginal Syndrome

DR. PAUL DAVID, Montreal

SESSION B

2.30 - 5.00 p.m. Nova Scotian Ballroom

The Surgical Treatment of Inguinal Hernia

DR. D. L. C. BINGHAM, Kingston

An Assessment of Results in Lung Cancer Surgery

DR. E. D. GAGNON, Montreal

The Gall-Stone Problem

DR. D. R. WEBSTER, Montreal

Pilot Study of Traffic Accidents

DR. HAROLD ELLIOTT, Montreal

SECTION OF SALARIED PHYSICIANS

2.30 - 5.00 p.m. Nova Scotian Salons B and C

Chairman: DR. A. R. MORTON, Halifax

The Function of the Physician in Industry

DR. D. C. BEWS, Montreal

The Effect of Socio-economic Trends on Medical Practice

DR. JOSEPH WILLARD, Ottawa

The Salaried Doctors' Contribution to Hospital Practice

DR. L. O. BRADLEY, Winnipeg

The Role of the Medical Administrator in Government Service

DR. J. S. ROBERTSON, Halifax

SECTION OF OBSTETRICS AND GYNÆCOLOGY

2.30 - 5.00 p.m. Nova Scotian Bedford Room

Chairman: DR. F. D. WANAMAKER, Saint John

The Incompetent and Obstructive Cervix

DR. JOSEPH TANZMAN, Saint John

The Management of Breech and Transverse Presentations

DR. JOHN H. MALONEY, Charlottetown

Mid-pelvic Dystocia

DR. W. D. MARSHALL, Victoria

The Management of a Patient in Labour for 24 Hours

DR. R. A. H. KINCH, London

A Comparison of Elderly and Young Primiparas

DR. R. T. WEAVER, Hamilton

SECTION OF GASTROENTEROLOGY

2.30 - 5.00 p.m. Nova Scotian Harbour Room

Chairman: DR. R. D. McKENNA, Montreal

Concepts in Small Bowel Radiology

DR. K. E. HODGE, Toronto

A Review of Pancreatitis

DR. R. A. POLSON, Winnipeg

Prolonged Jaundice

DR. M. M. HOFFMAN, Montreal

Panel—Ulcerative Colitis

Chairman:

DR. R. D. McKENNA, Montreal

Participants:

DR. P. M. O'SULLIVAN, Toronto

DR. C. M. BALLEM, Montreal

DR. W. S. ANDERSON, Edmonton

DR. R. H. THORLAKSON, Winnipeg

DR. R. O. JONES, Halifax

Thursday, June 19**ROUND TABLE CONFERENCES**

9.00 - 10.15 a.m. Nova Scotian Ballroom

Ear, Nose and Throat Problems in Children

Chairman:

DR. W. ROSS WRIGHT, Fredericton

Participants:

DR. W. J. McNALLY, Montreal

DR. A. E. DOULL, JR., Halifax

DR. J. B. WHALEY, Toronto

DR. MUNCEY TANTON, Woodstock

9.00 - 10.15 a.m. Nova Scotian Bedford Room

Recent Advances in Anaesthesia

Chairman:

DR. G. V. PARSONS, Moncton

Participants:

DR. E. R. DAVIS, Saint John

DR. W. A. OATWAY, Moncton

DR. A. F. PASQUET, Halifax

DR. L. E. PROWSE, Charlottetown

9.00 - 10.15 a.m. Victoria General Hospital Auditorium

Psychiatry in General Practice

Chairman:

DR. R. A. GREGORY, Lancaster

Participants:

DR. W. W. BLACK, Lancaster

DR. J. C. A. THERIAULT, Charlottetown

DR. J. F. NICHOLSON, Halifax

DR. KEVIN FORD, Fredericton

GENERAL SESSION

10.30 a.m. - 12.15 p.m. Nova Scotian Ballroom

Chairman: DR. A. F. VANWART, Fredericton

The Evolution of Infectious Diseases in the Course of History (The Blackader Oration)

DR. RENE J. DUBOS, New York

Problems in Cytodetection of Early Carcinoma of the Cervix

DR. MALCOLM B. DOCKERTY, Rochester, Minn.

Rheumatic Fever—Prevention and Treatment

DR. D. D. RUTSTEIN, Boston

SESSION A

2.30 - 5.00 p.m. V.G. Nurses' Residence Auditorium

Chairman: DR. R. C. DICKSON, Halifax

The Role of the Psychiatric Service in a General Hospital

DR. A. E. MOLL, Montreal

The Whys and Wherefors of Scalene Node Biopsy

DR. D. D. MUNRO, Montreal

The Importance of a Friction Rub Over the Liver to the Physician and Surgeon

DR. L. DEWITT WILCOX, London, Ont.

The Place of Renal Biopsy in Diagnosis of Medical Diseases of the Kidney

DR. JOHN D. L. FITZGERALD, Toronto

SESSION B

2.30 - 5.00 p.m. Nova Scotian Ballroom

Chairman: DR. GEORGE DUMONT, Campbellton

Splenectomy—Its Indications and Reservations

DR. C. H. CROSBY, Regina

Diagnosis and Treatment of Carcinoma of the Stomach

DR. P. H. T. THORLAKSON, Winnipeg

The Early Diagnosis of the Acute Abdomen

DR. J. B. EWING, Ottawa

Neoplasms of the Small Intestine

DR. M. B. DOCKERTY, Rochester, Minn.

SECTION OF PREVENTIVE MEDICINE

2.30 - 5.00 p.m. Nova Scotian Bedford Room

Chairman: DR. J. A. MELANSON, Fredericton

Tuberculosis in General Practice

DR. G. E. MADDISON, Saint John

Factors Affecting Intracellular Lipoid Deposition in Human Aortic Cells in Tissue Culture

DR. D. D. RUTSTEIN, Boston

Food Poisoning

DR. VINCENT GENDRON, Bathurst

Progress in the Prevention of Virus Infections in Man

DR. R. J. WILSON, Toronto

The Children's Health Service in Newfoundland

DR. LEONARD MILLER, St. John's

SECTION OF PÆDIATRICS

2.30 - 5.00 p.m. Victoria General Hospital Auditorium

Chairman: DR. R. G. MACDONALD, Saint John

Diabetes Mellitus in Infancy

DR. BARBARA ROBINSON, Fredericton

Preventable Mental Deficiencies

DR. L. E. LEBLANC, Edmundston

The Production of Immunity to Tuberculosis by a Fraction Derived from Killed Tubercle Bacilli

DR. RENE J. DUBOS, New York

Open Heart Surgery in Children

DR. D. R. MURPHY, Montreal

Friday, June 20

ROUND TABLE CONFERENCES

9.00 - 10.15 a.m. Nova Scotian Ballroom

Recent Advances in Dermatological Therapy

Chairman:

DR. J. G. MACLEAN, Saint John

Participants:

DR. FREDERICK KALZ, Montreal

DR. E. J. TROW, Toronto

DR. A. R. BIRT, Winnipeg

DR. W. S. MADDIN, Vancouver

DR. JEAN GRANDBOIS, Quebec

Current Obstetrical Problems

Nova Scotian Bedford Room

Chairman:

DR. H. B. ATLEE, Halifax

Participants:

DR. W. G. COLWELL, Halifax

DR. K. M. GRANT, Halifax

DR. CARL TUPPER, Halifax

DR. I. A. PERLIN, Halifax

DR. J. McD. CORSTON, Halifax

DR. M. G. TOMPKINS, JR., Halifax

GENERAL SESSION

10.30 a.m. - 12.15 p.m. Nova Scotian Ballroom

Chairman: DR. CHARLES GASS, Tatamagouche

The Relief of Deafness by Means of the Newer Operations

DR. W. J. McNALLY, Montreal

Heart Sounds

DR. AUBREY LEATHAM, London, England

Medical Treatment of 1000 Cases of Asthma and Rhinitis

DR. F. S. GRÉGOIRE, Montreal

SESSION A

2.30 - 4.30 p.m. Nova Scotian Ballroom

Chairman: DR. A. L. DONOVAN, Saint John

Œsophageal Lesions

DR. N. S. SKINNER, Saint John

The Anæmia Associated with Renal Disease

DR. DOUGLAS CAMERON, Montreal

Perphenazine in Practice

DR. N. L. MASON-BROWNE, Essondale, B.C.

Lead Poisoning From Burning Storage Battery Cases

DR. R. C. DICKSON, Halifax

SESSION B

2.30 - 4.30 p.m. V.G. Nurses' Residence Auditorium

Chairman: DR. H. E. BRITTON, Moncton

Recent Trends in the Treatment of Diverticulitis

DR. R. A. L. MACBETH, Edmonton

Simple Mastectomy and Postoperative Irradiation for Breast Cancer

DR. J. A. CASKEY, Saint John

The Treatment of Carcinoma of the Breast

DR. IAN MACKENZIE, Halifax

The Surgical Problems of Staphylococcus Pneumonia

DR. JOHN A. FINLEY, Saint John

ARMED FORCES MEDICAL SECTION

2.30 - 5.00 p.m. Nova Scotian Marine Room

Chairman: DR. B. K. COADY, Halifax

Theme—Medical Problems of the Maritime Commands

Army Maritime Medical Problems

COLONEL J. E. H. MILLER, RCAMC(M), Halifax

Psychiatric Problems in Recruits

MAJOR D. H. B. BEVAN-JONES, RCAMC, Halifax

Acceleration—Man and the Machine

SURGEON LIEUTENANT COMMANDER H. D. OLIVER, RCN, Halifax

A Review of Medical Air Evacuation in Eastern Canada
FLIGHT LIEUTENANT F. L. LANDRIGAN, RCAF, Greenwood

Problems of Peptic Ulceration in a Naval Environment

SURGEON COMMANDER R. H. ROBERTS, RCN, Halifax

TO THE LADIES!

TENTATIVE PROGRAM OF SOCIAL EVENTS
FOR THE
91ST ANNUAL MEETING, C.M.A.
Halifax, Nova Scotia, June 15-20, 1958

Sunday, June 15:

9.00 p.m. Informal Reception of Welcome, Nova
Scotian Hotel. Host: New Brunswick
Division, C.M.A.

Monday, June 16:

Registration.
Morning Coffee.
Afternoon Tea at Citadel Tea Room.

Tuesday, June 17:

Registration.
Morning Coffee.
Box Lunch Drive to Peggy's Cove; transportation
by private cars.
Dinner to General Council by the New Brunswick
Division, 7.00 p.m.

Wednesday, June 18:

Registration.
Morning Coffee.
Luncheon at the Lord Nelson Hotel.
Annual General Meeting, 8.15 p.m., Nova
Scotian Hotel. Formal Reception. Dancing.
Buffet Supper by Province of New Brunswick.

Thursday, June 19:

Registration.
Morning Coffee.
Afternoon Tea at Dalhousie University.
Mammoth Square Dance at Stadacona Naval
Gymnasium. Host: Prince Edward Island
Division.

Friday, June 20:

Farewell Coffee Party in morning at Lord Nelson
Hotel.

**DALHOUSIE MEDICAL
SCHOOL REUNION**

All alumni and alumnæ of Dalhousie Medical School attending the annual meeting of the Canadian Medical Association are extended a cordial invitation to spend the evening of Thursday, June 19, with their old friends. This evening has been allocated for university and class reunions at the Nova Scotian Hotel, beginning at 6.30 p.m. There will be a reception and an informal dinner open to all Dalhousie medical graduates and their spouses. If the committee is notified in advance, special tables can be reserved for class reunions at the dinner. At 9.30 p.m. there will be a square dance sponsored by the P.E.I. Medical Society. The organizing committee plans to have an exhibit of pictures and other interesting material connected with the history of the medical school. Any Dalhousie graduate who has items suitable for this exhibit is requested

to let the committee know. There will also be a Dalhousie registration booth near the C.M.A. registration tables. Tours of the medical school and its affiliated hospitals will be arranged. The committee also hopes to form a medical branch of the Dalhousie Alumni Association at the reunion dinner; it has the blessing of the Alumni Association.

All Dalhousie graduates are requested not only to register in the usual way at the C.M.A. meeting, but to mail a postcard to the Dalhousie Reunion Committee, Victoria General Hospital, Halifax, Nova Scotia, telling the committee that they will attend the reunion dinner.

PUBLIC RELATIONS WORKSHOP

For the first time in its history, the Canadian Medical Association has held a public relations workshop with representation from the Nucleus Committee on Public Relations and all the divisional P.R. committees. The workshop was held at C.M.A. House, Toronto, on April 18 and 19, with Dr. Gordon A. Sinclair of Toronto in the chair. In addition to members of the C.M.A. and O.M.A. staff, the following were present: Dr. G. A. W. Currie and Dr. R. A. Mustard of the Nucleus Committee; Dr. P. A. Sarjeant, Ontario; Dr. Arthur Powers, Quebec; Dr. W. E. Austin, British Columbia; Mr. D. Baird, British Columbia; Dr. S. Kling, Alberta; Dr. J. W. Kettlewell, Alberta; Dr. J. A. Forrester, Saskatchewan; Dr. F. G. Allison, Manitoba; Dr. R. McFarlane, Manitoba; Dr. D. I. Rice, Nova Scotia; Dr. B. L. Jewett, New Brunswick; Dr. Leo Killoran, Prince Edward Island; Dr. C. U. Henderson, Newfoundland; and Mr. Jean M. Denault, Quebec. Throughout the two days the debate was lively and stimulating and ideas flowed freely. Its purpose was twofold: (1) to provide national and provincial direction to organized medicine on all phases of medical public relations, with particular reference to the needs and problems of the divisions of the C.M.A. individually and collectively; (2) to establish stronger liaison in the field of public relations between the divisions themselves and between the divisions and the C.M.A.

Members of the workshop discussed public relations at various levels, beginning quite logically with federal and provincial legislatures. Those present felt the need to provide federal and provincial members of Parliament with information on the standpoint of organized medicine in relation to such topics as the health insurance program. The debate was summarized in a resolution: "that the C.M.A. keep all federal members of Parliament informed on the views of organized medicine in Canada relative to health insurance and other subjects of current interest."

There followed a discussion of the problems and public relations activities of the divisions, in order from west to east. It became apparent that in every division there is some public relations activity, though in the case of a few provinces this is still in a developmental stage. Examples of such activities included the proposed depth survey in B.C. to obtain facts about public opinion on the medical profession, the organization of speakers' bureaux in British Columbia and Ontario to provide accredited medical speakers for meetings of the laity, the satisfactory liaison with the daily press

established in Nova Scotia and other divisions, the assistance of the Manitoba division and others in reviewing TV and radio scripts, the establishment of an effective emergency call system as in Alberta, and the operation of mediation or grievance committees. The discussion on the subject of broadcasting and telecasting elicited the fact that the Manitoba division now expects its members to preserve anonymity on the radio or TV, and led to the recommendation of the workshop that it be again emphasized to all physicians appearing in a radio or TV program that they closely observe the procedure outlined in the "Code of Ethics" of the Canadian Medical Association and "Code of Co-operation". It was agreed, however, that each division should co-operate with radio and TV stations in providing the names of doctors who could offer guidance in presentation of programs on medical themes.

The subject of labour relations was considered, and it was again stressed that labour organizations should be provided with basic and factual information relative to the views of organized medicine.

Recruitment to the medical profession was debated, and it became apparent that the chief object of concern was the recruitment of students of higher academic attainments for medical schools.

On Friday evening, the members of the P.R. workshop joined with several representatives of news media outlets for an informal dinner at which there was a fruitful discussion of various phases of the doctor-press relationship. On Saturday, those participants in the workshop who had experience of newspapers, radio or TV led a discussion on P.R. techniques.

Other points which emerged from the discussions were the need to ensure that medical students receive adequate guidance in the development of good relationships with their patients. There was also a general feeling that physicians suitably qualified should be encouraged to undertake public service, either in Parliament or elsewhere. The Committee deprecated the practice of certain physicians in making known professional disputes to the daily press; it felt that physicians should be able to settle their differences among themselves, and that such differences should be referred to the outside public only when all attempts at arbitration had been exhausted.

MEDICAL MEETINGS

CONFERENCE ON THE TRANQUILLIZERS

The first conference on the Psychodynamic, Psychoanalytic and Sociologic Aspects of the Neuroleptic (Tranquillizing) Drugs was held at the Queen Mary Veterans Hospital in Montreal, April 11, 12 and 13, under the ægis of the Department of Psychiatry of McGill University. It was attended by some 35 Canadians and 80 Americans, psychiatrists, analysts, psychologists and pharmacologists. The program, utilizing five committees and 24 work papers, was planned by G. F. Sarwer-Foner and T. E. Dancey of the Queen Mary Veterans Hospital Department of Psychiatry.

The conference was called in order to hold a multi-disciplinary study of some of the more un-

expected effects of the tranquillizing drugs. Such paradoxical occurrences as the development of an excited stage in a patient's response to a tranquillizer have been explained in many apparently conflicting ways. Some have felt that it was a motor disturbance (acasthesia or restless inactivity). Others have felt that the psychodynamic explanation in terms of fancied rape or seduction by the doctor explained the occurrence more appropriately. Others have felt that the administration of tranquillizers was pernicious or required only to make up for the doctor's own instability. It must be obvious that some clarification in this field would be welcome.

The committee headed by F. A. Freyhan, Superintendent of the Delaware State Hospital, considered the physiological effects of the neuroleptic drugs. His opinion was that drug action was by far the most important contributor to the behavioral change. Papers presented to this committee considered the locomotor and conditioned avoidance response, and the phenomenon of catalepsy produced by bulbocapnine but also found to occur with tranquillizers. The relationship between the parkinsonian restlessness, inactivity and rigidity was also explored in connection with acasthesia. These were felt to be related to many of the untoward locomotor and side effects of the tranquillizers.

The milieu and sociological aspects of the tranquillizers were studied by another committee. R. W. Hyde, of Providence, R.I., who had previously done work in Boston, expressed the belief that the milieu was important and the drug effect relatively non-specific. This was particularly true of the lysergic acid experiment but also of other drugs. H. A. Bowes, of Ste-Anne-Bellevue, P.Q., sustained the opposing view, feeling that a special effect could be expected with some reliability.

Three committees worked on the psychoanalytic treatment effects of drug administration. H. Caplan and F. W. Lundell reported the use of Suvren in the treatment of behaviour problems in children. It was their thesis that many of the difficulties were organic and these could be dealt with by the administration of a specific drug, such as Suvren. If there were familial factors as well, supplementary psychotherapy was necessary.

The problem of regression in prolonged sleep treatment was considered by H. Azima of Montreal. He felt that a "planned regression" was possible in treatment and that this might have therapeutic value.

The transfer of counter-transfer problems arising from the use of drugs was considered by T. Detre, New Haven, Conn., and in the paper by C. Savage, Stanford, Calif. The former stressed the role of the drug administrator, as a doctor attempting to ease suffering. The latter felt that psychotherapy and the administration of the drug were, to a great extent, incompatible, leading to complicated transference situations which might render treatment impossible.

Mortimer Ostow discussed in two papers the use of the drugs in psychoanalysis and derived his theory of psychoenergetics. He felt that the important action of tranquillizers was to alter the amount of energy available to the ego. He thought that the phenothiazine family (such as chlorpromazine) reduced the amount of energy available and drove the patient towards a position of low-psyche energy which he equated with depression. On the other hand, iproniazid (Marsilid) increased the amount of energy avail-

able to the ego and improved the depression, but drove the patient in the direction of high energy which, in decompensation, gave the acute schizophrenic picture. This was an attempt to provide a theoretical framework for both the psychodynamic and the physiological function of the drug which might prove useful in future work. It was his feeling that the drugs could allow the use of psychoanalysis in borderline, acute or psychotic and addictive cases. Most analysts felt that psychoanalysis should not be used in this kind of patient because of the risk of further regression or violent acting out. He felt that the pharmacological effect was more powerful than the transference effect.

G. J. Sarwer-Foner, of Montreal, chairman of the planning committee, presented two papers on the use of the drugs at the Queen Mary Veterans Hospital. The responses of the patients to drug effects and side effects should be considered first as transference problems. They might be so powerful as to require stopping of the drug in this setting.

In the banquet hall of the McGill Faculty Club, H. Bowes presented a paper on the effects of music therapy, with some divagations into the field of hi-fi addiction.

Arrangements were made for a further conference to be held at an indefinite time in the future under the direction of H. C. B. Denber, New York City.

In a field in which so many different views are held and so many disciplines are involved, conferences of this nature have been long awaited. It was felt by those who attended that they had gained considerable understanding of each other's points of view. Attempts at interdisciplinary synthesis were considered to be still premature. Work should be carried on within the sphere of each disciplinary group. However, even at this stage, there was much to be gained from cross-fertilization from other fields. It was gratifying that this first conference should be held on Canadian soil with numerous contributions from our own scientists.

DAVID J. LEWIS

CANADIAN NEUROLOGICAL SOCIETY

The 10th Annual Meeting of the Canadian Neurological Society will be held at the Toronto General Hospital and at the Hospital for Sick Children on June 12, 13 and 14, 1958. The current President and host for these meetings is Dr. E. H. Botterell of the Department of Neurosurgery, University of Toronto. Guest speakers will include Dr. Earl Walker of Johns Hopkins; Dr. Purdon Martin of London, England; and Dr. John W. Mason of the Walter Reed Army Institute of Research, Washington. The scientific program will include symposia on "The problems of cerebrospinal fluid circulation" and "Some neuro-endocrine pituitary considerations". For those who might be interested in attending these meetings, further information may be obtained from the Secretary-Treasurer, Dr. J. L. Silversides, Suite 321, Toronto Western Hospital, Toronto.

GENERAL PRACTICE

ANNUAL MEETING OF THE COLLEGE OF GENERAL PRACTICE



THE SECOND NATIONAL Scientific Convention of the College of General Practice of Canada was held at the Royal Alexandra Hotel in Winnipeg on April 14, 15 and 16, 1958. The exceptionally good weather encountered at such an early time of

the year made every self-respecting Winnipegger blush with pride whenever any reference was made to it. To the enthusiasm of all the participants was added a heat spell which reached 84°F. on the opening day. About 600 physicians from all parts of Canada registered for the convention and supplied a very full attendance at most of the meetings.

In addition to the scientific presentations there were 35 exhibits contributed by various clinics, foundations and universities from Canada and the U.S.A. These varied from simple charts and literature to elaborate displays and three-dimensional reproductions. Over a hundred commercial exhibits displayed the most recent pharmacological products, surgical instruments, apparatus and services. Medical films were shown all day long in one of the salons of the hotel, the same program being repeated every day in order to allow everybody to see it in his own good time. More than 100 physicians availed themselves of the facilities offered for the health examination in the St. Boniface Hospital. A remarkably efficient system had been organized in the hospital itself. A brief history was supplied by the examinees, followed by a physical examination, chest radiograph, haemoglobin determination, urinalysis and electrocardiogram.

Members had the opportunity of listening to various guest speakers at the three luncheons which were organized for this purpose. Unfortunately, as there was more than one speaker at these luncheons, there was little time for any of the guests to do more than to address the audience in very general terms. News bulletins issued twice a day kept the members up to date on the events on the program.

The ladies' program included a bus tour around the city, courtesy flights over Winnipeg and a visit to the Department of Transport. A smörgåsbord at one of the local Chinese restaurants, together with a sherry party, was also featured.

The scientific session opened with an address by Dr. C. H. Slocumb from the Department of Rheumatic Diseases, Mayo Clinic, on the use and abuse of steroids. He considers them merely a form of supplemental treatment in rheumatoid arthritis, and pointed out the dangers of hypercortisonism which may be encountered after a few months of treatment. Only the active disease should be treated and not its sequelae, only patients who have shown an inadequate response to conservative treatment should be selected, and the risks involved should only be taken in the light of the possible benefits which may accrue. Dr. John D. Keith, physician in charge of the cardiac clinic and department of the Hospital for Sick Children, Toronto,

spoke on the selection of children for heart surgery. After a brief review of the murmurs encountered in correctable cardiac diseases (illustrated by a few patients on whom for the benefit of the audience an electronic stethoscope was applied), the speaker proceeded to give a time-table of the development of cardiac surgery. He divided the various cardiopathies into those amenable to surgery with conventional methods, hypothermia, and heart-lung preparations, and listed those still inoperable by present standards.

The clinical manifestations of gout were outlined by Dr. J. A. Blais, chief of the arthritis clinic at Hôtel-Dieu of Montreal; he reviewed the features of gout and gouty arthritis and listed the drugs employed in the treatment of this metabolic disease. Closed intra-abdominal wounds, their diagnosis and treatment were dealt with by Dr. H. L. McNicol from the Flin Flon Clinic. A detailed description of the various steps involved in exploratory laparotomies in searching for internal lesions was given. Methods of repair were offered and postoperative management was briefly discussed.

In the course of the symposium on rheumatism which took place on the afternoon of the first day, Dr. Slocumb pointed out that we now have developed a serological test for diagnosis of arthritis comparable to that for the diagnosis of syphilis, referring to the latex fixation test (which was recently reviewed in this journal). Whereas Dr. Wiebe considered the various forms of arthritis as having a gloomy prognosis, since no specific therapy has been found so far, Dr. Blais's rather hopeful outlook was based on the reversibility of the disease as observed in certain conditions such as pregnancy and hepatitis. All members of the panel condemned the use of aspirin and steroids combined in the same tablet, wishing to exert better control by prescribing them separately.

Among the everyday problems in dermatology covered by Dr. A. R. Birt were seborrhoeic dermatitis, psoriasis, eczema, localized neurodermatitis and moniliasis. Rev. Charles Feilding, Dean of Divinity, Trinity College, University of Toronto, brought a spiritual note to the scientific presentations by giving an outline of the chaplaincy training under pastoral and medical supervision. His address entitled "Religion and Medicine" showed how pastors in training come to know people under stress. An excellent review of current paediatric problems was presented by Dr. J. F. McCreary, professor and head of the Department of Paediatrics, University of British Columbia. Dr. McCreary showed how the highest number of sudden deaths in babies occur at the period of life when the level of gamma globulin is lowest, which may indicate that some of these deaths are caused by fulminating infections. He pointed out that life expectancy of the mentally retarded, which used to be four to six years, is now close to that of the normal individual and thus gives rise to problems of rehabilitation and custody. He also showed how acquired bacterial resistance to certain antibiotics may be lost if the antibiotics are not used for a year or two.

The conduct of labour was reviewed by Dr. J. C. Portnuff, assistant obstetrician and gynaecologist of the Jewish General Hospital of Montreal. He insisted on the dynamic aspect of labour and on a correct diagnosis of the onset of true labour. Dr. Portnuff prefers the pudendal-block type of anaesthesia which he considers as the most practical, as it can be mastered by

the obstetrician himself, and has a minimum of toxicity for mother and child. In his paper on cervicitis, its significance and treatment, Dr. B. H. Watson, associate clinical professor of obstetrics and gynecology at the University of California School of Medicine, Los Angeles, stated that cervicitis affected up to 85% of the female population of this country. He claimed that one yearly gynaecological examination was essential for all women between the ages of 35 and 65.

A paper by Dr. R. Boucher of Montreal, read in his absence by Dr. Emard, dealt with Dr. Boucher's experience with rare diseases such as ornithosis, rabies and trichinosis. Dr. Marion Hilliard, retired chief of the active staff of the Women's College Hospital of Toronto, spoke on functional uterine bleeding. It is important in this condition to rule out tumour pathology and blood dyscrasia. The main lines of general and specific treatment were outlined. In the course of a panel on vaginitis, Dr. Portnuff stated that this disease interferes with the enjoyment of life and thus has social, economic and medical importance. Dr. Wall dealt with parasitic vaginitis, which represents the most persistent form of leukorrhoea in practice. Dr. Ransky dealt with unspecific or bacterial vaginitis. The hormonal causes of vaginitis were covered by Dr. Watson.

Dr. Ronald Dupuis addressed a handful of members in French on current trends in surgical treatment of duodenal ulcers. He showed how the present trends, which are resulting in a lowering of mortality rates, had their roots in the historical aspects of the problem. In his opinion vagotomy and gastroenterostomy seem a better treatment for duodenal ulcers than gastrectomy. In a discussion of pyrosis, Dr. R. C. Dickson established a difference between acid regurgitation, waterbrash and heartburn. Middle ear disease and early deafness was the topic presented by Dr. T. C. Wilson of Edmonton. Dr. Wilson showed how acute catarrhal middle ear infection, chronic adhesive processes, acute suppurative otitis media, or perforations of the drum can lead to impairment of hearing. Dr. E. W. Spencer, professor of radiology at the University of Saskatchewan, has first-hand experience of general practice and imparted some of his knowledge in dealing with pitfalls in radiological diagnosis. Dr. Emile Simard of Chicoutimi spoke in French on the post-cholecystectomy and post-gastrectomy syndromes; Dr. Simard is professor of surgery at Laval University and a surgeon at Hôtel-Dieu St-Vallier, Chicoutimi. Helpful points in the techniques used in plastic surgery were given by Dr. W. A. Lange of Detroit, Mich. Dr. Lange considers that the general practitioner may better serve his patients if he has some knowledge of the techniques used in various forms of repair.

The meeting of the College committees took place on the evening of Monday, April 14, and the general business meeting on the afternoon of the next day. Among the points discussed was the need for greater participation of general practitioners in the training of their replacements. This implies the creation of new residencies in general practice and the appointment of general practitioners in hospital departments of general practice and outpatient departments. A trend in this direction has already started but much progress is yet to be achieved. In the line of postgraduate education, the granting of the 12 Upjohn scholarships, of \$500 each, provided a stimulus to members of the College. The objective set by the membership com-

mittee for 1958 is 2000 members. This would mark a step in the attainment of the expected goal of about 30% of the total number of general practitioners in Canada. It appears that for legal purposes the College is soon to be known as The College of General Practice (*Medicine*) of Canada. Membership certificates will be written in Latin and the College crest is to be amended accordingly.

In the course of his valedictory address the president, Dr. Jack McKenty, warned his colleagues against the belittling of general practice by such slips of the tongue as that which is frequently heard when a family doctor introduces himself as "I am only a general practitioner." "On the other hand," said Dr. McKenty, "one should rather say that he is a general practitioner and proud of being a physician who has learned as much of all the various aspects of medicine as is possible, and that, as a member of the College, he can feel sure that this institution sees to it that he should keep up to date". The new president, Dr. Pat Rose, is a native of Edmonton, where he now practises. He graduated from the University of Alberta and served with the R.C.A.M.C. Dr. M. E. Hobbs of Millbrook, Ont., is president-elect.

The next annual meeting of the College will take place in the Royal York Hotel, Toronto, from April 20 to 23, 1959.

MEDICAL ECONOMICS

CANADIAN ANÆSTHETISTS' MUTUAL ACCUMULATING FUND

Following a preliminary canvass of the opinion of members of the Society, the Annual General Meeting of the Canadian Anæsthetists' Society in June 1957 authorized the incorporation of an open-end mutual investment fund to be known as Canadian Anæsthetists' Mutual Accumulating Fund. Letters patent for the Fund were issued by the Secretary of State for Canada on September 13, 1957.

The objective of the Canadian Anæsthetists' Society in incorporating the Canadian Anæsthetists' Mutual Accumulating Fund Limited was to provide a vehicle for the investment of savings which would be complementary to registered pension plans such as the Canadian Medical Association Retirement Savings Plan. This Fund is not a pension plan registrable for income tax deferment. In registered plans the contributions are "locked in" until taken as an annuity and the value represented by such funds may not be pledged as security to obtain credit. These restrictions on funds invested in registered plans dictate the necessity of another type of investment fund which will permit recovery of the sums invested if such recovery should prove to be an economic necessity, and which will permit the use of these funds as security to obtain credit, while at the same time providing a "hedge" against the inflationary tendencies in our economy.

The class "A" shares of the Canadian Anæsthetists' Mutual Accumulating Fund are redeemable on short notice on application to the Fund, at the net asset value of the shares at the time of redemption, and only that portion of the sum received at redemption which is represented by dividends paid into the subscriber's

account by the Fund in the current year is taxable under current legislation, while even this amount is subject to the 20% reduction before taxes which is allowed on dividends of taxable Canadian corporations.

For the shareholder, the Fund provides the investment of *even small amounts of personal capital* in a wide range of first-class securities representing all areas of the national economy, under expert investment management. The provision of a convenient monthly savings plan for the purchase of shares provides for automatic growth of personal holdings, while the re-investment of dividends provides for compounding in the account of the individual investor. The individual shareholder in the Fund pays the income tax in each taxation year on the dividends credited by the Fund to his account, so that the whole of the sum accruing from eventual redemption of shares will be income-tax free, under present legislation.

The objective of the Fund is to keep sales cost of shares as low as possible. There is, therefore, no "front-end loading". The Fund is licensed to issue its own shares in each of the provinces of Canada except Prince Edward Island.

The objective of the directors and managers of the Fund is to produce the maximum in long-term capital growth. Each security added to the approved list is carefully scrutinized with this objective in mind. No speculative securities are included in the approved list.

The Fund has contracted with Fry and Company, Investment Management Limited, as managers of the Fund and with the Royal Trust Company, Toronto, as agents, on most advantageous terms.

Participation in the Fund is open to all members of the medical profession, and it is the hope of the Canadian Anæsthetists' Society as promoters of the Fund that many doctors will wish to take advantage of this professionally sponsored investment fund to complement their savings in the Canadian Medical Association Retirement Savings Plan or other registered retirement savings plans. Further details of the Fund are available on application to the Canadian Anæsthetists' Mutual Accumulating Fund Limited, 178 St. George Street, Toronto 5.

T.C.M.P. REPORT

The national office of Trans-Canada Medical Plans has recently released a report on future trends for health coverage of national groups. In this report the following points are made:

1. While coverage of local groups within provincial areas will continue to represent the major percentage of coverage needs, there is a growing list of organizations whose operations and employment of personnel extends over two or more provinces.

2. There will be continuing interest in "comprehensive service" coverage, provided the service feature is maintained for the average income worker.

3. Increased competition may be expected from the commercial insurance carriers.

4. Changes in business practice, the growth of collective bargaining and the influence of the commercial carriers all help to sell the idea of national contracts.

More streamlining is required to integrate T.C.M.P. programs into these changing business practices.

5. A trend to broader welfare programs and an awakened interest in protection against other costs in addition to medical care are serving to point up a need for T.C.M.P. to make available through one source or another a developed program of ancillary benefits.

6. The difficulties for the medical profession and its sponsored plans in the provision of service benefits will no doubt continue, because the problems produced by such contractual arrangements are those of human relations and for these there is no single solution. Increased attention, however, should be given to all aspects of these arrangements in order that existing differences can be reduced where possible.

MISCELLANY

A RESIDENCY IN HOSPITAL PHARMACY

[The idea of internships in medical training has long been accepted. Below is an account, kindly supplied by the Dean of the Faculty of Pharmacy, University of Toronto, of a similar arrangement for training of hospital pharmacists, which may prove the forerunner of a general program.]

The pharmacy internship offered by the Women's College Hospital, Toronto, is a postgraduate program of organized training in hospital pharmacy. The objective of this internship is to train hospital pharmacists who will be capable of assuming the duties and responsibilities of an assistant pharmacist in any hospital without further experience.

The continuing expansion of public and private hospital systems, increased demand for hospitalization and other factors have shown the need for administrative pharmacists, skilled in hospital practice, who possess specialized training and experience in this branch of pharmacy. An academic four-year course in pharmacy cannot be expected to prepare a pharmacist to carry out efficiently all of the dynamic aspects of hospital pharmacy administration or the technical aspects of hospital pharmacy practice. Medical internships are required for licensing, whereas, at the present time, hospital pharmacy internships are served on a voluntary basis. In hospitals approved for medical internship programs, the medical staff and the hospital administrator are prepared to accept full responsibility for the proper training of the medical intern. In the pharmacy internship program at the Women's College Hospital, this responsibility has been assumed jointly by the hospital and the Faculty of Pharmacy, University of Toronto.

The four-year curriculum leading to the degree of Bachelor of Science in Pharmacy was established in 1948, and in 1953 the program leading to the degree of Master of Science in Pharmacy was established by the senate of the University. It is planned that the proposed internship or residency program in hospital pharmacy, which is to commence in September 1958, will be combined with academic work leading to a certificate in hospital pharmacy.

The residency program will include not less than 50 full weeks of hospital pharmacy training. The personnel responsible for the residency program at the

Women's College Hospital are Mrs. Isabel Stauffer, B.Sc., M.S., Special Lecturer in Hospital Pharmacy Administration, who will be the internship program co-ordinator from the Faculty of Pharmacy, University of Toronto, and the chief pharmacist, Miss Phyllis Takenaka, B.Sc.Pharm.

Standards for the curriculum, facilities and personnel for providing pharmacy internship training in hospitals are being studied by the Canadian Society of Hospital Pharmacists in conjunction with the Canadian Conference of Pharmaceutical Faculties. These two associations jointly will ultimately become the approving body for a hospital wishing to offer an internship program in hospital pharmacy.

The intern will be assigned to and given supervised instruction in the following specific activities:

1. Inpatient and general dispensing 8 weeks
2. Outpatient dispensing 5 weeks
3. Bulk compounding and preparation of sterile products 8 weeks
4. Bulk compounding and pre-packaging of non-sterile products 8 weeks
5. Administration of pharmacy services in the hospital 13 weeks
6. Lectures and conference in the pharmacy department 3 weeks
7. Collateral and interdepartmental special activities 5 weeks

The time allotted to instruction in each area may be varied in accordance with the previous training and experience of the candidate.

In order to provide the Resident in Pharmacy with a complete and well-rounded experience in the functioning of the modern hospital and hospital pharmacy, he will serve as an observer in the several hospital departments with which the pharmacy service has contact. Thus, upon completion, he should be familiar with hospital organization and with the relationship of the pharmacy service to the medical staff, to the patient and to the over-all hospital activity.

The resident in pharmacy will be required to maintain a residency record in which all his professional activities are recorded in detail; and in addition to this, he will be required to work on a special written project.

For female interns, in addition to room, there will be provided a meal allowance of \$25 each two weeks and a salary of \$125 monthly. As male interns will not be able to live in residence, a room allowance of \$30 will be provided in addition to meal allowance and salary. During the last six months of the residency the intern will be on call at specified times during weekends and holidays. He or she will receive a vacation of two weeks.

Pfizer Canada have made available a \$500 Fellowship in Hospital Pharmacy to an intern to be selected by the Faculty of Pharmacy, University of Toronto. The Canadian Foundation for the Advancement of Pharmacy provides a fellowship of \$750 open to candidates in any part of Canada for postgraduate work in hospital pharmacy. This internship program comes within the scope of the Foundation award.

Candidates who have successfully completed the residency period and met the requisite standards will be awarded a certificate.

Each eligible candidate must hold the Bachelor of Science in Pharmacy degree in this or another university, including at least one course in hospital pharmacy administration. Preference may be given to candidates who have previous experience in hospital pharmacy practice amounting to at least six months.

PUBLIC HEALTH

COMMUNICABLE DISEASES IN CANADA

For the week ending April 26, 1958, the Epidemiology Division of the Department of National Health and Welfare, Ottawa, received the following reports of the occurrence of communicable diseases.

INFLUENZA

The services.—The Director of Hygiene and Preventive Medicine, D.G.M.S. (Air), reports an outbreak of influenza-like disease in an R.C.A.F. camp at Holberg, B.C., involving about 450 personnel.

Indian and Northern Health Services.—The following reports have been received from Dr. P. E. Moore, Director, Indian and Northern Health Services, and Dr. J. S. Willis of the Northern Health Services:

Aklavik.—The Medical Officer in Charge at Aklavik has forwarded a report on the influenza epidemic last fall: "The outbreak of influenza which began in Aklavik on October 22 continued to occupy our time until mid-November. Five hundred and fifty cases were seen. Treatment consisted of salicylates, antihistaminics and nose drops. Patients with a known history of tuberculosis or repeated ear infections received tetracyclines prophylactically. We saw about 28 cases of pneumonia following influenza. One of these patients died. Two cases of tuberculosis became reactivated shortly after they fell ill with flu. Of 33 persons inoculated with A-57 vaccine, four developed 'flu-like' symptoms over 10 days later."

Ministikwan Reserve.—Dr. T. J. Orford, Zone Superintendent, North Battleford Indian Hospital, Sask., reports a mild outbreak of influenza-like illness, affecting 32 persons of whom two have been admitted to Loon Lake Hospital with pneumonia.

Sugluk, P.Q.—The earlier influenza epidemic involving Eskimo employees of the mining company at Deception Bay has extended, involving about 60 Eskimos at Sugluk.

IMPETIGO

Onion Lake.—Dr. Cooke of Lloydminster has reported an outbreak in the residential school involving about 35 children. Four of the cases are being admitted to North Battleford Indian Hospital. The offending organism is probably resistant *Staph. aureus*, as all treatments tried to date have been unsuccessful.

POLIOMYELITIS

Dr. Naylor of the Wood Clinic at High Prairie has reported two cases of paralytic poliomyelitis in Indian boys aged 1½ years and 1½ months.

WHOOPING COUGH AND MUMPS

MANITOBA.—Dr. K. I. Johnson, Medical Officer of Health, Pine Falls, reports 20 cases of whooping cough and 50 cases of mumps.

ALBERTA.—Dr. E. S. Orford Smith, Director, Division of Local Health Services, forwarded the following reports:

Claresholm Town.—Dr. K. Adler, Medical Officer of the Chinook Health Unit at Fort Macleod, reports about 40 cases of whooping cough in the Town of Claresholm and surrounding district.

Peace River.—Mrs. M. Copping, acting Senior Nurse of the Peace River Health Unit, has reported that about one-fifth of the lower school population is suffering from mumps.

BORNHOLM DISEASE

NEWFOUNDLAND.—Dr. A. O'D. McDermott, Chief Medical Health Officer, Department of Health, St. John's, has been advised by Dr. King of Bay l'Argent that about 40 people in the St. Bernard's Area, Fortune Bay, are suffering from a syndrome suggestive of Bornholm disease. The symptoms are: acute pain on deep breathing, headache, malaise, backache, and temperature of 101-102° F.

INFECTIOUS HEPATITIS

NOVA SCOTIA.—Dr. H. B. Colford, Director of Communicable Disease Control, has forwarded the following report:

Yarmouth.—Dr. V. K. Rideout has received a report from one doctor of 15 cases of infectious hepatitis. He believes that many more have not been reported or diagnosed.

GASTRO-ENTERITIS

BRITISH COLUMBIA.—Dr. E. W. R. Best, Medical Officer of Health, Nanaimo, reports approximately 30 cases in the Nanaimo area. The vomiting and diarrhoea affect mostly infants and preschool children. In several families parents and children were affected at the same time. One 9-month-old boy died. The stool cultures were bacteriologically negative and it is suspected that the infective agent may have been a virus.

WORLD MEDICAL ASSOCIATION

"MEDICINE—A LIFELONG STUDY"

The Second World Conference on Medical Education, Chicago, Illinois, August 30 to September 4, 1959, will consider the theme "Medicine—A Lifelong Study", as a logical sequel to the 1953 London conference at which undergraduate medical education was discussed.

Approximately 100 invited speakers from more than 50 countries will present papers at the conference. Simultaneous translation for English, Spanish and French will facilitate the discussions of the world's leading medical educators, investigators and practitioners as they consider the problems, programs and standards of advanced medical education.

The following have accepted the invitation of The World Medical Association to participate at the 1959 Conference:

President: Dr. Raymond B. Allen, Chancellor, University of California in Los Angeles.

Deputy Presidents: Dr. Ray F. Farquharson, University of Toronto; Dr. Victor Johnson, Director of Mayo Foundation for Medical Education and Research, University of Minnesota Graduate School of Medicine.

Vice-Presidents: Prof. H. Chiari, Austria; Dr. A. J. Garretton (Silva), Chile; Prof. Dr. C. Heymans, Belgium; Dr. V. R. Khanolkar, India; and Prof. Yoshia Kusama, Japan.

In addition to these, the Program Committee is awaiting replies from Vice-Presidents selected from the medical profession in Colombia, Egypt and Great Britain.

The Second World Conference on Medical Education is being organized and sponsored by The World Medical Association. Collaborating organizations include: the World Health Organization, the Council for International Organizations of Medical Science, and the International Association of Universities. The American Medical Association is the host organization.

Information relative to the program, participation and invitations can be obtained from The World Medical Association, 10 Columbus Circle, New York 19, N.Y.

fetus is mature regardless of the duration of gestation and if delivered will not suffer from prematurity. The amount of radiation exposure does not contraindicate the use of this film as a routine procedure in elective section.

The fetal weight may be calculated according to a method described by R. W. Johnson.² We have used this method on many occasions to estimate fetal weight and have been impressed with its accuracy. I would suggest that this method be used with the x-ray in all cases of elective section.

MORRIS P. WEARING, M.D.

289 Dufferin Avenue,
London, Ont.,
April 18, 1958.

REFERENCES

1. *Canad. M. A. J.*, 78: 392, 1957.
2. *Am. J. Obst. & Gynec.*, 74: 929, 1957.

LETTERS TO THE EDITOR

CANADIAN VISITORS TO BRITAIN

To the Editor:

The visit of many members of the Canadian Medical Association to the British Isles next year on the occasion of the Joint Annual Meeting of our two Associations in Edinburgh will be a source of pleasure to all B.M.A. members.

As Director of the Commonwealth Medical Advisory Bureau I am most anxious to assist any Canadian Medical Association members who may wish to take the opportunity of being in this country to visit places of medical interest. It would help me considerably if those who are anxious to visit hospitals and clinics in this country, either before or after the Joint Meeting, would let me know as early as possible their interests and their requirements.

I shall welcome all enquiries from members of the Canadian Medical Association but would be glad to make suitable arrangements well in advance of the anticipated visit.

R. A. PALLISTER, M.D., M.R.C.P.

Medical Director,
Commonwealth Medical Advisory Bureau,
British Medical Association House,
Tavistock Square, London, W.C.1,
April 14, 1958.

RADIOGRAPHIC DIAGNOSIS OF MATERNITY

To the Editor:

The article entitled "Cæsarean Section at the Winnipeg General Hospital Maternity Pavilion, 1951-1956" by C. R. Bradford,¹ was most interesting. The finding that 3.3% of infants delivered by elective section were premature was most thought-provoking. This emphasizes again the importance of estimating correctly the size and/or the maturity of the fetus.

It is well known that x-ray examination of the fetus for epiphyses will indicate maturity. If the distal femoral and proximal tibial epiphyses are present, the

ASSISTANCE OF PHYSICIANS IN VIRUS RESEARCH

To the Editor:

One year ago, the co-operation of Ontario physicians was sought in a combined field and laboratory investigation of epidemics of probable virus etiology. With the assistance of medical practitioners and medical officers of health, some 30 different outbreaks were investigated.

The field studies were carried out by Dr. C. R. Robinson, FitzGerald Memorial Fellow, School of Hygiene, University of Toronto, aided in the laboratory studies by Miss F. W. Doane, B.Sc., and Dr. A. J. Rhodes of the School of Hygiene.

The illnesses investigated included ulcerative conditions of the mouth and throat in children, aseptic meningitis and meningo-encephalitis, and many mild febrile illnesses with a German-measles-like rash. From these various illnesses Coxsackie, Echo and herpes simplex viruses were recovered.

Of particular interest was an outbreak in a suburb of Toronto that involved at least 60 persons. The illness presented with a fever, a vesicular eruption of the mouth and throat, and vesicles on the skin. This particular triad of features appears to constitute a new clinical entity. Virological investigations suggest association with Coxsackie virus Group A type 16, not previously isolated in North America.

Several cases of rubelliform eruption, some with a complicating aseptic meningitis, were studied. These were found to be examples of infection with Echo type 9 virus. It will be recalled that there was a widespread epidemic of aseptic meningitis in Ontario in 1956 caused by this virus. The cardinal features were fever, rubelliform rash, aseptic meningitis, and a high cell count in the cerebrospinal fluid (500 per c.mm. or more) with a high percentage of polymorphs.

It is the purpose of this letter to invite the continued assistance of medical practitioners in Ontario in the study of epidemics of infectious diseases of presumed virus etiology. During the coming year, the research team wish to direct their chief efforts to an investigation of diseases with German-measles-like rashes. It seems quite possible that the clinical disease "German measles" or "rubella" is in fact a syndrome caused by Echo 9 and other viruses.

With funds from the National Health Grants Program of the Ontario and Federal Governments, it is again possible to organize a research team in the School of Hygiene, University of Toronto, under the direction of Dr. A. J. Rhodes. Dr. C. R. Robinson and Dr. D. E. Ryder from this group are free to visit areas within a 50-mile radius of Toronto in which epidemics of presumed virus etiology are occurring. They will see patients in consultation with the physician concerned, make epidemiological enquiries, and take the necessary specimens for the laboratory examinations to be done in the School of Hygiene, University of Toronto.

This is a field of research in which physicians in general and paediatric practice can readily take part, and many have already assisted us in earlier studies.

Information about epidemics may be communicated to Drs. Robinson or Ryder at the School of Hygiene, University of Toronto (WA. 3-6611, Local 513) directly, or through the local medical officer of health.

A. J. RHODES, M.D.,
F.R.C.P. (Edin.)

School of Hygiene,
University of Toronto,
Toronto 5,
April 10, 1958.

There is no evidence that antimicrobial therapy markedly shortens the course of tuberculous endobronchitis due to encroachment of caseous nodes on bronchi. There is also no evidence that the use of specific therapy diminishes the incidence of sequelae in bronchi and parenchyma. Nevertheless the authors feel that there is justification for treating children with tuberculous endobronchitis in the hope of diminishing the dangers of bronchogenic spread of the tuberculosis.

S. J. SHANE

Atherosclerotic Occlusion of the Abdominal Aorta and Iliac Arteries: A Study of 105 Patients.

J. J. MASSARELLI AND J. E. ESTES: *Ann. Int. Med.*, 47: 1125, 1957.

From the records of 105 patients with clinical manifestations of aorto-iliac occlusion, data were obtained regarding the age and sex of the subjects, cause of the occlusion, associated diseases, symptoms, physical findings, and the results of laboratory and roentgenographic investigations. Prognosis of untreated aorto-iliac occlusion was studied in relation to these data. Prognosis was considered from the point of view of survival, cause of death, amputation of one or both extremities, and ischaemic manifestations in the lower extremities.

In general, the survival rate for persons with this syndrome was somewhat less favourable than for a "normal" group of corresponding age. For example, 76.7% of patients with aorto-iliac occlusion survived less than three years after the initial diagnosis, 71.2% survived less than five years, and 58% less than eight years. The corresponding rate for a so-called normal population of the same age group was as follows: survival three years or more, 94.9%; five years or more, 90.9%; and eight years or more, 84.1%. The causes of death were predominantly of a vascular nature, and the proportion of patients dying of coronary artery disease to those dying of disease of a cerebral artery was approximately 3:1. Among 36 patients with aorto-iliac occlusion who died subsequently, 30 succumbed to atherosclerosis in one form or other.

Only four persons required amputation of an extremity during the years included in the present study. The incidence of ischaemic complications was relatively low. Minor trophic alterations in the toes occurred in three patients; in all of these the lesions healed. Two patients who were also diabetic reported that they had chronic ulcers of their feet. Another patient experienced acute gangrene in a lower extremity; this was a terminal event before death, which was caused by myocardial and cerebral infarction. Another suffered acute arterial occlusion at the bifurcation of the right femoral and popliteal artery; conservative treatment resulted in survival of the affected extremity. Two patients experienced low-grade ischaemic neuropathy. The severity of the claudication was not altered in the majority of patients observed during a minimum period of two years. A small number of patients reported an increase in its severity, but an approximately equal number claimed a spontaneous improvement in their claudication.

The data collected are utilized to formulate a rational methodology for the selection of patients for aorto-iliac operations. Apart from this, the data could be used to evaluate the efficiency of such a treatment and the criteria of its necessity.

S. J. SHANE

ABSTRACTS from current literature

MEDICINE

Endobronchial Tuberculosis in Children.

E. M. LINCOLN *et al.*: *Am. Rev. Tuberc.*, 77: 39, 1958.

A group of 156 children with primary tuberculosis showing endoscopic evidence of bronchial tuberculosis is reported. In this series of cases, endobronchial tuberculosis was more frequent in children less than four years of age, and in boys. Severe symptoms were more often observed in young infants.

Roentgenographic evidence of obstruction was observed in 90% of the patients. Evidence of segmental obstruction was more commonly seen in the right lung and most often in the right middle lobe and in the anterior segment of the right upper lobe. Of the group 77% received antimicrobial therapy; in 66% of those treated, the medication was given for more than six months; in 48%, for more than a year.

Granulation tissue was the most frequent finding on bronchoscopy. Fifty-four of the 156 patients had polyps, and erosion of the bronchial wall was diagnosed in 25 cases. The duration of endobronchial involvement by bronchoscopy could be measured in only 70 patients. It continued for less than three months in 11 children, 4 of whom were untreated; from one to more than three years in 23 children, 18 of whom received specific therapy; and in 10 for more than a year.

Bronchograms, done on 103 patients without selection, showed abnormal findings in 70, marked abnormalities in 50. Bronchiectasis was the most common evidence of damage, occurring in 70% of those with marked abnormalities. The percentage of children with abnormal bronchograms was very similar in the treated and untreated groups.

Predictive Value of Lipoprotein and Cholesterol Determinations in Diabetic Patients who Developed Cardiovascular Complications.

A. D. LOWY, JR. AND J. H. BARACH: *Circulation*, 17: 14, 1958.

This paper represents a part of the U.S. Public Health Service research project designed to determine if the lipoprotein molecule and cholesterol determinations have any predictive value for ensuing atherosclerotic complications. Six hundred and ninety white diabetic patients were examined from 1951 to 1953, and for 606 of these the authors obtained follow-up data in the subsequent two to five years. In the group followed up there were 61 new atherosclerotic events consisting of myocardial infarction, angina pectoris, arteriosclerosis obliterans, and cerebral vascular accidents. The mean lipid values in the patients with complications were elevated as compared with those who did not develop complications. This was most evident in the females 40 to 59, and to a lesser extent in the males 60 and over. When the analysis was performed by quartiles, more than 50% of the complications occurred in patients whose lipid determinations were above the median. These differences were significant for males 60 and over and for females 40 to 50. In the age group 14 to 39, only 2 males and 2 females developed complications and no definite conclusions can be drawn even though the results appear favourable.

The lipid measures as a predictor of vascular complications in diabetic patients are not applicable to any one individual. For a large group, however, the patients with higher values tend to have a greater number of complications. The increased chance of developing a complication varies with age, sex and the particular lipid measure. The cholesterol value as a predictor is as good as the lipoprotein molecules, if not better, and the complexity and expensiveness of the S_f molecule determination make its use impractical for clinical purposes.

S. J. SHANE

Aortic Stenosis of No Physiologic Significance.

E. W. HANCOCK *et al.*: *New England J. Med.*, 258: 305, 1958.

The clinical diagnosis of aortic stenosis is often difficult, as the symptoms and signs in any case may be far from typical. The diagnosis is important because of the possibility of improvement after surgery, even though the majority of patients are over 45 years of age.

Seven cases are presented in which a clinical diagnosis of aortic stenosis had been made and in which the possibility of cardiac surgery was contemplated. Catheterization of the left side of the heart in five cases and postmortem examination in two revealed no evidence of significant narrowing of the aortic valve. Coronary-artery disease was present in five and mitral-valve disease in two.

The authors point out that aortic stenosis and chronic coronary-artery disease may cause very similar clinical syndromes of cardiac disease. Also, functionally insignificant changes in the aortic valve may produce clinical signs indistinguishable from those produced by severe aortic stenosis.

The presence or absence of significant aortic stenosis can be objectively established by cardiac catheterization and this should be carried out whenever aortic valve surgery is considered.

NORMAN S. SKINNER

Survival in a Group of Steroid-Treated Nephrotic Children.

E. C. BURKE: *Proc. Staff Meet. Mayo Clin.*, 33: 12, 1958.

The purpose of this study was to evaluate the effectiveness of a treatment program for the nephrotic syndrome employing corticotrophin and cortisone or prednisone from 1953 to the present.

Of the entire group of 61 children with the nephrotic syndrome who were treated with steroids and followed up for 7 to 55 months 21% were dead, while 71% were in clinical remission and 8% were in exacerbation.

Follow-up data were available on 42 of this group of 61 children for 19 to 55 months after treatment was started. Of these 31% were dead and an additional 64% were in clinical remission. These mortality figures are similar to those of other workers.

The report is of a preliminary nature; it will be necessary to extend the survival study to 20 years if survival in the steroid-treated group is to be compared with that in the group treated before the introduction of steroids.

Deaths in nephrotic children are usually due to chronic nephritis rather than to infection. *Intensive and prolonged intermittent treatment with steroids and antibiotics now seems to be the treatment of choice for the nephrotic syndrome.*

S. J. SHANE

Massive Occlusion of the Main Pulmonary Artery and Primary Branches.

J. M. LEINASSAR AND N. R. NILES: *Circulation*, 17: 60, 1958.

A case of thrombotic pulmonary embolism is reported. This is apparently the most massive pulmonary artery obstruction of any significant duration in the literature; the length of life after the initial episode (six years) is therefore especially surprising and also the longest yet reported. A plea is made for proper etiologic diagnosis of cor pulmonale as well as for recognition of the syndrome of chronic pulmonary vascular obstruction. This is a common cause of death in atrial septal defect.

S. J. SHANE

The Ocular Lesions of Pulseless Disease.

H. P. WAGENER: *Am. J. M. Sc.*, 235: 220, 1958.

Occlusion of the main branches of the aortic arch, the so-called aortic arch syndrome, may be caused by lesions of several types. The terms "pulseless disease" and "Takayasu's disease" should be reserved probably for instances of the syndrome occurring in persons less than 40 years of age in whom the occlusions appear to be the result of arteritis of non-specific type. Of the 81 cases collected from the literature, which seemed to meet these specifications, 73 (90%) were in women. Although a large number of cases have been reported from Japan and although it was believed for a time that the disease was almost exclusively confined to the Japanese, cases have now been recorded from varied parts of the world.

The earliest ocular symptoms and signs of the disease, transient episodes of blurring or loss of vision and low pressure in the central artery of the retina, appear to be due to insufficiency of blood supply to the retina; this is manifest particularly when the patient is standing, at which time fragmentation of the blood stream in the retinal vessels may be visible ophthalmoscopically. The late ocular manifestations,

permanent loss of vision which may be total, atrophy of the retina and iris with neovascularization, the formation of retinal microaneurysms and peripapillary arteriovenous anastomoses, and the rapid development of cataracts, result apparently from progressively increasing anoxia of the retina and uveal tract.

S. J. SHANE

Jejunal Biopsies in Sprue.

C. E. BUTTERWORTH, JR. AND E. PEREZ-SANTIAGO: *Ann. Int. Med.*, 48: 8, 1958.

For many years the various opinions as to the pathologic changes in the intestines of patients with sprue have been in conflict. To add to the difficulties, additional artefacts occur after death. Recently, jejunal biopsies were obtained during laparotomies for other causes from six Puerto Ricans with demonstrated malabsorption syndrome. In comparison with normal controls, all these specimens showed oedema, infiltration of the lamina propria with chronic inflammatory cells, and abnormally large villi. Thinning of the mucosa was not a prominent feature. Five of six specimens showed inflammatory infiltration, vacuolation, and thinning of the columnar epithelium. There may be a relationship between the histologic abnormalities that occur in squamous epithelium, gastric epithelium and the bone marrow of the patients with sprue. Estimations of the superficial absorptive area indicate that the result of a reduction of this area could be a contributing factor in the development of the malabsorption syndrome. The findings do not support the opinion that the intestine in sprue is histologically normal. One additional patient with megaloblastic anaemia of pregnancy and normal absorption tests did not show the mucosal pathology observed in the biopsies of patients with sprue. It is to be hoped that future pathologic investigations will result in a more precise differentiation between the various causes of malabsorption.

S. J. SHANE

SURGERY

Indications for Common-Duct Exploration: Evaluation in 1000 Cases.

M. K. BARTLETT AND W. R. WADDELL: *New England J. Med.*, 258: 164, 1958.

Exploration of the common duct markedly increases the mortality rate of cholecystectomy (from 0.6 to 1.8 in the experience of the authors). Because of the greater risk, common duct exploration should be avoided if possible, and the present study is an effort to define indications for such exploration.

A study of 1000 cases of combined cholecystectomy and choledochostomy, performed at the Massachusetts General Hospital from 1943-1953, revealed that stones were found in only 38% of the common ducts explored. From an analysis of this large group the authors list the following indications for choledochostomy: previous attacks of pancreatitis (even though few stones will be found in this group); history or presence of jaundice; dilatation of the duct system; and, of course, the presence of a palpable stone in the common duct. The presence of small stones in the gall-bladder is generally considered an indication for common duct exploration but in such cases exploration is unnecessary. Stones are found in the common duct in only 16% of such cases and would generally be expected to pass spontaneously. NORMAN S. SKINNER

Critical Review of 160 Consecutive Scalene Node Biopsies.

S. M. SCOTT: *Am. Rev. Tuberc.*, 76: 1002, 1957.

Scalene node biopsies were performed on 160 patients with undiagnosed pulmonary or mediastinal lesions. Patients with proved or suspected carcinoma of the lung or carcinoma of the oesophagus had scalene node biopsies to determine operability as well as diagnosis. This series does not include superficial supraclavicular or cervical node biopsies.

A positive histologic diagnosis was made in 33 (20.6%) of the 160 scalene lymph node biopsies performed. One specimen was also positive for tubercle bacilli by culture. Frequently a tissue diagnosis of reactive hyperplasia, chronic lymphadenitis, or anthracosis of the prescalene lymph nodes was reported. These nonspecific entities had no correlation with the intrathoracic disease.

All of the diseases encountered in this series of lymph node biopsies have been reported previously. Sarcoidosis was the most consistently diagnosed disease, 87% of the nodes revealing this characteristic change. *Silicosis of lymph nodes was present in 40% of the patients with pulmonary silicosis or silico-tuberculosis.*

Bacterial and fungal infections infrequently involved the prescalene lymph nodes. All cultures were sterile except one which was positive for tubercle bacilli. In 4 nodes (14.3%), there was histologic or bacteriologic evidence of fungal disease.

Primary carcinoma of the lung comprised the largest individual group in which scalene biopsy was performed. During the period of review, there were 156 patients with the diagnosis of pulmonary carcinoma; 64 had scalene node biopsies. Ten of these nodes (15.6%) were positive for neoplastic disease. Bronchoscopy and sputum examinations failed to reveal histologic or cytologic evidence of carcinoma in the 10 patients. Of the 64 patients, however, bronchoscopic biopsy led to the finding of carcinoma in 22 instances (34.4%). Of the 54 cases of carcinoma with normal scalene nodes, 40 were operable; in 21 of these (39%), the carcinoma was resected. One patient with carcinomatous disease in the scalene node was operated upon, but the lesion was not resected.

Of the 160 biopsies performed, 154 were unilateral; 97 were performed on the right side only and 22 (23.6%) revealed evidence of a specific disease; 57 were performed on the left only and 10 (17.5%) specimens were diseased. Of the 6 bilateral node biopsies, only a single node was found to contain evidence of a specific disease.

The chest roentgenograms of the patients with positive scalene nodes were not characteristic of the diseases found. Of 5 biopsies for solitary peripheral lesions, less than 3 cm. in diameter, there were none in which disease was detected in the nodes.

The importance of good technique is indicated by a yearly analysis of the biopsies performed. As experience increased, the percentage of positive results on examination of biopsy material increased. Simultaneously, the number of specimens without nodes decreased. It is now believed that removal of a fat pad without nodes represents an incomplete procedure.

No serious complications were encountered in this series.

S. J. SHANE

The Absorption of Ascitic Fluid by Means of Ileo-Entectomy in Patients With Advanced Cirrhosis.

C. G. NEUMANN, G. C. ADIE AND J. W. HINTON: *Ann. Surg.*, 146: 700, 1957.

Ileo-entectomy is an operation in which a segment of intestine is turned inside out. After experimental work on animals with ascites caused by inferior vena cava ligation, a procedure for the control of ascites due to cirrhosis of the liver in humans was devised. The intestine was first sterilized by neomycin and sulfonamides. The omentum was excised. A segment of ileum 15 to 18 inches long was resected and by-passed by an ileo-ileostomy. The isolated segment was opened along the antimesenteric border and its serosa attached to the anterior abdominal wall. As more patients were operated upon, improvements in technique were devised.

Of 10 patients thus operated upon, five died within three weeks. None required paracentesis after the operation, though all had required it before, and salt intake was not limited. The causes of death were acute hepatic necrosis or massive hæmorrhage from oesophageal varices. Peritonitis did not occur. Mucous discharge from the exposed mucosa did not seem a problem in the experimental animals or the patients. The surviving patients felt greatly improved. Improving technique leads to optimism that the operative mortality will decrease, though these patients are very ill before operation is undertaken. All have reached a stage in which medical management no longer relieves, and the selection of patients for ileo-entectomy requires great judgment. Pre-operative jaundice or oesophageal varices makes the operation especially hazardous, and all deaths in this series had one or both complications. Low serum albumin did not augur poorly for the patient's chances of survival.

The explanation of the passage of albumin through the mucosa is not known.
BURNS PLEWES

Study of the Hæmodynamic Effects of the Aorto-Coronary Sinus Graft Operation in Patients with Coronary Artery Disease.

T. W. MOIR AND W. H. PRITCHARD: *Circulation*, 16: 1070, 1957.

A group of patients with coronary artery disease in whom an aorto-coronary sinus graft was surgically created were investigated to determine the functional effects on the cardiovascular system. Preoperatively, mean values for basal cardiac output were within the lower ranges of normal and the average blood volume values were normal.

Postoperatively, no circulatory abnormalities were demonstrated in patients in whom the aorto-coronary sinus graft was thrombosed at the time of study. In those patients with patent grafts, hæmodynamic changes usually associated with an arteriovenous fistula were demonstrated. Cardiac output and work increased, effective systemic flow decreased, peripheral resistance fell, and blood volume became greater. The increase in cardiac output was related to an increase in pulse rate in cases with small shunt flows and to augmentation of stroke volume when fistulas were of greater magnitude and duration. Elevation of the total blood volume was shown to be related to the presence of cardiac failure and not to the presence of the arteriovenous fistula per se.

Cardiac failure developed in some of the patients with a functioning aorto-coronary sinus graft and could be reversed with subsequent surgical obliteration of the shunt. The development of cardiac failure in these patients with preexisting heart disease could not be entirely related to the volume of duration of shunt flow, but rather seemed dependent on a lack of "myocardial reserve" to withstand the added load of an arteriovenous fistula.
S. J. SHANE

The Case against Carotid Ligation in the Neck in the Treatment of Arteriovenous Anomalies of the Cerebrum.

H. J. SVIEN AND J. P. HOOKER: *Proc. Staff Meet. Mayo Clin.*, 32: 739, 1957.

A review of the literature and of the authors' own cases indicates that carotid ligation in the neck is rarely beneficial, and occasionally is harmful, in the treatment of arteriovenous anomalies of the cerebrum. Observations derived from angiographic studies indirectly suggest a decrease of vascular pressure in the region of the lesion which results in shunting of blood destined for other portions of the brain into the lesion. Ligation of the carotid artery reduces pressure in the retinal artery, and inferentially the pressure in the circle of Willis, and thus further lowers the pressure within the lesion. For these reasons the authors believe that carotid ligation in the neck is fundamentally unsound as a treatment of arteriovenous anomalies of the cerebrum.
S. J. SHANE

Studies on Hypothermia in Abdominal Surgery. II. Occlusion of the Vascular Inflow to the Liver.

R. G. W. GOODALL, W. W. B. HYNDMAN AND F. N. GURD: *A.M.A. Arch. Surg.*, 75: 1011, 1957.

Three sets of experiments are described showing the effect of hypothermia in enabling occlusion of the blood supply to the upper gastro-intestinal tract, liver and spleen to be maintained for times up to an hour in dogs. In the control series, clamping off the porta hepatis, celiac axis and superior mesenteric artery in normothermic dogs for more than 30 minutes resulted in peritoneal exudate, oedema and hæmatomata of the small bowel, ileus and collections of subserosal gas. But such vascular occlusion produces a satisfactory bloodless field for resection of the right lobe of the liver. Hypothermia to 28° C. for an hour enables the operation of right hepatectomy to be performed without any serious side-effects.

The method of inducing cooling with thiopental and a lytic cocktail described would permit resection of the right lobe of the liver and gall-bladder for primary neoplasm with comparative ease and safety.
BURNS PLEWES

Closed Reduction of Common Shoulder and Elbow Dislocations without Anæsthesia.

R. W. PARVIN: *A.M.A. Arch. Surg.*, 75: 972, 1957.

The methods of reducing dislocations advocated by the author, who is a colonel in the U.S. Army, are not new, but are revivals that have been found practical and relatively painless in an Army hospital. Three methods of reducing dislocated shoulders are described and illustrated. Sometimes a sedative is given, but all methods depend on patience and gentleness rather than quick manipulation. The Milch method of dependent traction with the patient prone is most often used. Boehler's method is accomplished by the patient's

turning on a swivel-topped stool while he grasps a fixed object with the hand of the affected extremity, so as to rotate the arm externally. Bennet's method involves traction by including the patient's flexed forearm in the operator's belt with the shoulder abducted.

Elbow dislocations are reduced by dependent traction also. With the patient prone and the arm hanging freely, downward traction is maintained by one hand on the wrist with a lateral lift on the upper arm to flex the elbow a little.

Since too much or too sudden traction causes pain and muscle spasm, these methods of reduction usually take 5 to 10 minutes.

BURNS FLEWES

THERAPEUTICS

Effect of Sitosterol on Concentration of Serum Lipids in Patients with Coronary Atherosclerosis.

F. P. RILEY AND A. STEINER: *Circulation*, 16: 723, 1957.

A colloidal suspension containing from 19 to 52.5 g. per day of sitosterol was administered orally to 13 patients with coronary atherosclerosis, three of whom had associated xanthomatosis. The serum total cholesterol concentration decreased during the 1 to 6 month periods of sitosterol ingestion. However, in only 9 of 18 instances of sitosterol administration in the 10 patients with coronary atherosclerosis was this fall in serum cholesterol statistically significant. In the three patients with xanthomatosis and coronary atherosclerosis the serum cholesterol level fell significantly but rebounded towards control values after six to nine weeks, despite maintenance of the sitosterol regimen. The fall in mean serum total cholesterol during sitosterol feeding was more impressive in this latter group in which the initial serum total cholesterol values were higher. The effect on neutral fat and total lipid levels of the serum was variable. The cholesterol/phospholipid ratio tended to remain unchanged throughout the study. Results indicate that further observations are necessary to demonstrate that the fall in serum cholesterol coincident with sitosterol ingestion is greater than the fluctuation of the serum cholesterol levels that occur in patients with coronary atherosclerosis.

S. J. SHANE

A Study of the Clinical and Metabolic Effects of 9 α -Fluoro-11 β -Hydroxy-17 α -Methylestosterone (Fluoxymesterone).

T. H. MCGAVACK AND W. SEEGER: *Am. J. M. Sc.*, 235: 125, 1958.

Two men were subjected to metabolic and clinical studies before, during, and after the administration of fluoxymesterone at dosage levels of 5 and 10 mg. daily. Marked clinical improvement occurred in one patient who had shown both mental and physical deterioration before treatment; this was maintained for at least one month after treatment was discontinued. A second patient, in relatively good condition before treatment, was not strikingly changed by administration of the steroid, although nitrogen balance became more positive. Fluoxymesterone, at a dosage level of 5 mg. daily, caused a definite increase in the retention of nitrogen. No further increase occurred when the dosage was doubled. Within three days after fluoxymesterone was discontinued, balances for nitrogen had decreased.

Urinary 17-ketosteroid levels were decreased during administration of 10 mg. daily of fluoxymesterone. Serum protein, albumin, and total cholesterol were slightly increased when 10 mg. of fluoxymesterone was given daily. A decrease in previously abnormal values for thymol turbidity and cephalin flocculation occurred in one formerly cirrhotic subject. Blood urea nitrogen was slightly lowered during treatment, while blood sugar was unchanged.

In addition to the two men upon whom nitrogen balance studies were performed, seven other patients were given fluoxymesterone for varying periods of times, ranging from approximately 6 weeks to more than 2½ years. These patients suffered respectively from schizophrenia, osteoporosis, eunuchoidism (two patients) and the male climacteric (three patients). No appreciable improvement was obtained in the patient with schizophrenia. Improvement of varying degree was noted in the other six patients.

The authors conclude that fluoxymesterone is an effective androgen with good metabolic action. It is not possible from the present studies to compare its androgenicity and anabolic actions successfully. However, the writers are inclined to believe that it is androgenic in direct proportion to the degree in which it is anabolic, and that it represents an effective method of introducing an anabolic androgen orally.

S. J. SHANE

Prophylactic Effects of Isoniazid on Primary Tuberculosis in Children. A Preliminary Report.

Am. Rev. Tuberc., 76: 942, 1957.

In a co-operative investigation (a U.S. Public Health Service tuberculosis prophylaxis trial), 2750 children with asymptomatic primary tuberculosis have been under observation by 32 clinical investigators. The purpose of the study is to determine whether small daily doses of isoniazid for one year will decrease the frequency of immediate complications of primary tuberculosis, and the frequency of chronic pulmonary tuberculosis in adolescence and adult life. Half of these children are being given a daily dose of 4 to 6 mg. of isoniazid per kg. of body weight, and the other half an identical placebo in equivalent amounts. Special precautions are being taken so that the groups of children are comparable in all respects, except that one group is receiving isoniazid and the other is not. The study is being conducted on a "double-blind" basis.

By June 30, 1957, a total of 1394 children in the isoniazid group and 1356 children in the placebo group had been observed for from one to 30 months, and this paper is in the nature of a preliminary report.

During this period of therapy, serious extrapulmonary tuberculous complications developed in five children receiving isoniazid and in 26 receiving the placebo. In the isoniazid group, there were one case of meningitis, one case of skeletal tuberculosis, and one case of pleurisy with effusion. In the placebo group, there were six cases of meningitis, two tuberculomas of the brain, one case of miliary tuberculosis, five cases of skeletal tuberculosis, seven cases of pleurisy with effusion, one case of tonsillar tuberculosis, one of phlyctenular conjunctivitis, and various manifestations of tuberculous disease in three children who became clinically ill.

There were other, less clear-cut indications that isoniazid was of some benefit.

Examination of the group receiving the placebo revealed that children under one year of age were under the greatest risk of developing tuberculous complications. Those with normal roentgenograms had tuberculous complication rates of 33 per 1000, those with hilar or paratracheal involvement had rates of 100 per 1000, and those with parenchymal involvement had a rate of 182 per 1000. It appeared that children between one and six years of age were under little risk unless they had positive roentgenologic findings.

Although only about two-fifths of the children had been observed for 18 months at the time of publication, there is no indication that the effect of isoniazid is that of merely delaying the appearance of complications, rather than preventing them. Between the 12th and 18th months, there were two complications among 576 children in the isoniazid group and three among 574 children in the placebo group.

Although the results are far from complete and many are not clearly defined, one may foresee that, when the final results are collected and statistically analyzed, a distinct bias will be evident in favour of the administration of isoniazid to children with asymptomatic primary tuberculosis.

S. J. SHANE

Glucagon Treatment of Insulin Reactions.

H. ELRICK, T. A. WITTEN AND Y. ARAI: *New England J. Med.*, 258: 476, 1958.

Glucagon has been reported as a successful agent in counteracting the hypoglycæmic effect of insulin in normal man, in psychotic patients undergoing insulin coma therapy and in diabetic patients. The results of the present study would indicate its value in the treatment of hypoglycæmic insulin reactions in the clinical management of diabetes.

The effect of glucagon was assessed in this investigation of 41 insulin reactions (27 spontaneous and 14 deliberately induced) occurring in 18 hospitalized diabetic patients. Blood sugar was repeatedly estimated in each instance. One to two mg. of glucagon, injected intramuscularly or subcutaneously, effectively relieved the attacks.

Glucagon would appear to be an important agent for the treatment of insulin reactions. It could be easily administered in the home by the patient himself. While it elevates the blood sugar to the normal post-prandial level, it does not cause transient hyperglycæmia, which would be of definite advantage in the management of the so-called "brittle" diabetic.

NORMAN S. SKINNER

An Evaluation of Meprobamate in the Treatment of Various Rheumatic Disorders.

C. L. STEINBERG AND A. I. ROODENBURG: *Am. J. M. Sc.*, 235: 157, 1958.

In this investigation, the effect of meprobamate therapy was studied in three groups of patients suffering from various rheumatic disorders. In one group, consisting of eight patients, no appreciable change was noted in the cholesterol esters or plasma proteins while under meprobamate therapy. A leukopenia of 3850 developed in one patient after having been on 2400 mg. of the drug daily for 14 days. No objective improvement was noted in the joint findings of any of these patients. In another group, consisting of six patients, no abnormalities were found in the electrolytes while under

1200 mg. of meprobamate treatment daily. A final group consisted of 50 cases of which 26 were patients with psychogenic rheumatism; 22 of them experienced a satisfactory clinical response. Some of these patients reported feeling well for the first time in years.

Meprobamate appears to be a valuable drug for the treatment of psychogenic rheumatism. Its effect on organic joint disease is practically nil.

S. J. SHANE

OBSTETRICS AND GYNÆCOLOGY

Conservation of Ovarian Tissue in Radical Surgery of Carcinoma of Cervix.

M. L. McCALL, E. C. KEATY AND J. D. THOMPSON: *Am. J. Obst. & Gynec.*, 75: 590, 1958.

It appears that ovaries function well when left *in situ* after extensive pelvic surgery. It is obvious that the majority of patients with preserved ovarian tissue are better physically and are more contented than a similar group of castrates. It is becoming increasingly evident that ovarian function is of basic and vital importance not only to young women but also to older women.

If the survival rate of this study group can be shown to be as good as or better than the survival rate in castrates, one absolute and unshakable indication for surgery rather than irradiation will have been established.

It is hoped that this preliminary report will point the way to more intelligent individualization of therapy for cancer of the cervix in young women with early lesions.

ROSS MITCHELL

Effective Uterine Blood Flow During Labour.

H. P. WRIGHT *et al.*: *Am. J. Obst. & Gynec.*, 75: 3, 1958.

The effective uterine blood flow has been measured in 20 women during the early first stage of labour and in 26 women during the late first stage. Blood flow was within normal resting limits in all but three instances in the early first stage, but in the late first stage 16 (more than half) showed diminished uterine blood flow. Fetal distress developed in three cases and these all showed great reduction in the effective uterine blood flow.

The significance of these findings in both normal and pre-eclamptic labours is discussed. The consequent hazards to the infant are considered with reference to the etiology of fetal distress in the first stage of labour.

ROSS MITCHELL

Experience with a Blood Fibrinogen Bank.

N. F. PAXSON *et al.*: *Am. J. Obst. & Gynec.*, 75: 618, 1958.

In the first 76 obstetrical patients who received fibrinogen from the bank established in Philadelphia, there were 67 recoveries and 9 deaths. The fibrinogen was a decisive factor in the recovery of these patients with serious obstetrical hæmorrhage.

There is a close relationship between precipitate labour, abruptio placentæ, postpartum hæmorrhage and fibrinogenopenia. The extremely large proportion of multiparas suggests that there may be a relationship between multiparity and precipitate labour that predisposes to this disease.

Fibrinogen, as produced for the American Red Cross, is a relatively safe product, as the incidence of

hepatitis was only 5% (three cases). A supply of 10 grams of fibrinogen should be enough to meet the demands of any case that may develop. This supply might well be pooled by a community of several hospitals for reasons of economy.

Analysis of the primary avoidable factors suggests that nine cases were due to the elective use of Pitocin, either to induce or to stimulate labour without medical indication, and three cases to error in judgment or technique by the attending physician—a total of 12 cases with three deaths. Nine cases were attributed to the patient—two of induced abortion and death and seven with no prenatal care. In 51 cases, or 72%, no avoidable factor was found. ROSS MITCHELL

The Choice Between Death from Postmaturity and Death from Induction of Labour.

G. F. GIBBERD: *Lancet*, 1: 64, 1958.

We must accept that postmaturity carries an increased risk to the fetus, but this is not necessarily a good reason for forcing the fetus out of the frying-pan of postmaturity into the fire of induction of labour. For those who think they have found a safe and effective method of induction there is no problem. For those impressed by the fallibility and dangers of all the present-known methods of induction, the management of postmaturity will remain a difficult problem. Appreciation of the dangers of postmaturity is essential, but that must not overshadow an understanding of the dangers of induction.

In the presence of other complicating factors, the management of postmaturity calls for the fullest individual consideration, for all the niceties of judgment, and often also for finesse in treatment. In uncomplicated cases, with our present imperfect methods of induction of labour, it is probably better to avoid the treatment of postmaturity altogether rather than to embark on a rigid policy of prevention.

ROSS MITCHELL

PUBLIC HEALTH

Role of Preventive Medicine in Highway Safety.

R. A. MCFARLAND: *Am. J. Pub. Health*, 47: 288, 1957.

The control of accidents, particularly those occurring on the highway, falls within the province of preventive medicine. Moreover, responsibility of the physician or health officer for the prevention of accidental death and injury is as great as that for the prevention and treatment of disease. The epidemiologic approach is also applicable in this field; similar biologic principles are involved. In most instances there is multiple causation in accidents and attempts at control should involve consideration of the interaction of host, agent, and environment, i.e. the worker, the equipment, and surroundings or working area.

The host is of primary medical concern; his basic physical, physiologic and psychologic characteristics must be considered. When these facts are associated with the agent (the vehicle) under any given set of environmental conditions, important factual information can be discovered. There is increasing evidence that factors of personality, adjustment and attitude are of primary importance in safe driving. Low in-

telligence, youthfulness and a personality make-up in which social responsibility is weak or lacking, have a relationship to accident frequencies. The influence on safety of various temporary states in the individual, such as fatigue, emotional problems and the effects of alcohol, can hardly be overemphasized. A promising method for detecting accident repeaters is based on the concept that "man works (or drives) as he lives". Medical officers and industrial physicians can identify those with a record of repeated accidents and through clinical approaches determine how well adapted they are to their responsibilities.

Also important is application of the principles of human engineering—the design of equipment in relation to the biologic and psychologic characteristics of the operators. Indifference to human capabilities and limitations in the original design has led to many accidents on highways as well as in industry.

The third phase of the epidemiologic approach—the host-environment relationship—is concerned with the effect on the individual of several physical variables in the environment—level of illumination, temperature, humidity, carbon monoxide concentration in the air, and presence of traffic. For each there are zones of comfort and discomfort, and ranges where the efficiency of human performance is reduced, to the detriment of safety. MARGARET H. WILTON

INTRAVENOUS CHLORPROMAZINE

(Continued from page 785)

Frequently oral chlorpromazine is given during the balance of the day and the daily dosage required appears to be substantially less than if the oral route was used exclusively. No cases of jaundice or parkinsonian syndrome have appeared in the series.

One side-effect has been encountered, that of hypotension during the first five or six treatments; this may be severe enough at the end of treatment for the patient not to be allowed to get up unescorted lest he faint. In this series, there were five such episodes of fainting which led to no untoward after-effects.

From a physiological point of view, there was one group of patients who found this method of treatment disturbing. They were the anxious obsessive patients who tried to deal with their inner anxieties by redoubling their conscious controls. For them the relaxation that the treatment afforded caused them a greater anguish and they insisted that the treatment be stopped.

The use of chlorpromazine intravenously does not supplant personal reassurance and support in the management of the acutely anxious patient, but it is a worthwhile sedative technique which has the merit of being readily available to the psychiatrist and general practitioner alike.

Mental Health Centre,
4400 Grandview Highway,
Burnaby 2, B.C.

OBITUARIES

DR. ROSAIRE H. LANOUE died at Tecumseh, Ont., on April 2, at the age of 53. He was born at Stoney Point, Ont., and attended the University of Ottawa, graduating in arts in 1925. He then entered the University of Western Ontario, and graduated in medicine in 1931. After an internship in Hôtel-Dieu Hospital, Windsor, he began the practice of medicine in Tilbury, Ont. In 1933 he moved to Belle River, at the same time taking postgraduate studies in radiology at the University of Michigan. Dr. Lanoue took up residence and began practice in Tecumseh in 1941. In 1944 he became a specialist in radiology in the Hillary-Cole Clinic, Windsor. He became Medical Officer of Health in Tecumseh in 1948 and served in that capacity until his death.

He is survived by his widow.

DR. EDOUARD LAVERDURE died on March 26 in Sacred Heart Hospital, Hull, P.Q., at the age of 60 years. He had been in hospital since February 20 when he was badly burned in a fire at his home. Dr. Laverdure was born in Hull and studied medicine at the University of Montreal, where he graduated in 1923. He had always practised in Hull; he was a governor of the College of Physicians and Surgeons of the province of Quebec and was a former head of the department of medicine of Sacred Heart Hospital.

Dr. Laverdure is survived by his widow and three daughters.

DR. ANDRE LEGENDRE of Shawinigan, P.Q., recently died after a long illness at the age of 35. Dr. Legendre was a graduate of the University of Montreal ('48) and a member of the College of General Practice.

He is survived by his widow, a son and two daughters.

DR. PETER McKELLAR SPENCE, 45, died suddenly in the early hours of March 20 at his home in Fort William, Ont. He was born in Fort William, the son of the late Dr. C. E. Spence and May McKellar Deacon. He attended the Fort William Collegiate and the Royal Military College, and graduated from the University of Toronto in 1939. He joined the R.C.A.M.C. in 1940 and served mainly in Italy until the end of the war. He was mentioned in despatches. On his return from overseas he returned to his studies in Toronto and received his Certification in Internal Medicine. He returned to Fort William in 1947 to join his father and took the lead in establishing the Spence Clinic. While serving in Italy he was married in Rome to Lieut. Isobel Forrest, a nursing sister in the R.C.A.M.C.

Dr. Spence is survived by his widow, a son Charles and a daughter Elizabeth; three brothers, Dr. John Spence, Fort William, and Messrs. Donald and Elwood Spence of Toronto; and a sister, Mary (Mrs. D. MacLaren), of Paipoonge.

DR. PETER McKELLAR SPENCE

AN APPRECIATION

Seldom has a young man made such a contribution to his home community in ten short years as that made by Peter Spence.

"Doctor Peter", as he was affectionately called by his patients, his colleagues and citizens generally, was born in our city. His mother was a niece of the McKellar brothers who making their home here in 1863 were considered our pioneer family, the central part of the city occupying their original homesteads. His father, the late Dr. C. E. Spence, came to Fort William in 1908 and over the years built up the largest family and surgical practice at the Lakehead. Peter graduated in 1939 and, after long war service, completed his training in internal medicine at Toronto and returned home in 1947 to join his father. His influence was rapidly felt in the city and particularly on the Medical Staff of McKellar Hospital. Dr. Peter was an unusually hard worker, he was an alert and keen diagnostician and was becoming known as a doctor's doctor. He rapidly took on his share and more in the activities of organized medicine. He served on many committees of the Medical Staff of the Hospital and of the Thunder Bay Medical Society and served for some years as our representative on the House of Delegates of P.S.I. Peter was the guiding star in the development of the Spence Clinic. He was joined a few years later by his younger brother, John, and between them they soon developed an enthusiastic and well-trained group. They were just completing an extensive building program at the time of Peter's death. I have been informed that the final decorating of his own office had been completed the evening before and he never occupied the suite he had planned for himself.

In spite of a very busy professional career, Peter made time for an active interest in many city activities. He was a Rotarian and served his term as President. He maintained the life-long family interest in St. Andrew's Presbyterian Church, was a regular attendant and was chairman of the successful fund-raising committee in 1957 for alterations to the church. Peter had always been interested in the Boy Scout movement and was Vice-President of the North Western Ontario Boy Scout Association. With the establishment of the Lakehead Technical College, Dr. Peter was the medical representative and became a member of their advisory committee.

Many of us believe that a man's worth is not measured by the length of his life but by the use of the years given him. Measured by this scale, Dr. Peter will be long remembered by those who knew him.

W.P.H.

FORTHCOMING MEETINGS

CANADA

AMERICAN ACADEMY OF DENTAL MEDICINE, 12th Annual Meeting, Montreal, Que. (Dr. Louis J. Rosen, Convention Chairman, 3465 Côte des Neiges Road, Montreal, Que.) May 28-31, 1958.

CANADIAN FEDERATION OF BIOLOGICAL SOCIETIES (Canadian Physiological Society, Pharmacological Society of Canada, Canadian Association of Anatomists, Canadian Biochemical Society), First Annual Meeting, Kingston, Ont. (Dr. E. H. Bensley, Honorary Secretary of the Board, Canadian Federation of Biological Societies, Montreal General Hospital, 1650 Cedar Avenue, Montreal 25, P.Q.) June 7-11, 1958.

CANADIAN OTOLARYNGOLOGICAL SOCIETY (SOCIÉTÉ CANADIENNE D'OTOLARYNGOLOGIE), Annual Meeting, Halifax, N.S. (Dr. Donald M. MacRae, 324 Spring Garden Road, Halifax, N.S.) June 9-11, 1958.

CANADIAN TUBERCULOSIS ASSOCIATION, 58th Annual Meeting, Quebec City, P.Q. (Dr. G. J. Wherrett, Executive Secretary, Canadian Tuberculosis Association, 265 Elgin St., Ottawa 4, Ont.) June 9-12, 1958.

CANADIAN OPHTHALMOLOGICAL SOCIETY (SOCIÉTÉ CANADIENNE D'OPHTALMOLOGIE), 21st Annual Meeting, Halifax, N.S. (Dr. R. G. C. Kelly, Secretary, 90 St. Clair Ave. West, Toronto 7, Ont.) June 12-14, 1958.

CANADIAN ASSOCIATION OF PLASTIC SURGEONS, Annual Meeting, Toronto, Ont. (Dr. D. C. Robertson, Medical Arts Bldg., 170 St. George St., Toronto 5, Ont.) June 12-14, 1958.

CANADIAN NEUROLOGICAL SOCIETY, 10th Annual Meeting, Toronto, Ont. (Dr. J. L. Silversides, Secretary-Treasurer, Suite 321, Toronto Western Hospital, Toronto.) June 12-14, 1958.

THIRD CANADIAN CANCER RESEARCH CONFERENCE, Honey Harbour, Ont. (Dr. Robert L. Noble, Medical Research Laboratory, University of Western Ontario, London, Ont.) June 15-19, 1958.

CANADIAN MEDICAL ASSOCIATION, 91st Annual Meeting, Halifax, Nova Scotia. (Dr. A. D. Kelly, General Secretary, The Canadian Medical Association, 150 St. George Street, Toronto 5, Ont.) June 16-20, 1958.

CANADIAN RHEUMATISM ASSOCIATION (SOCIÉTÉ CANADIENNE DE RHUMATOLOGIE), Annual Meeting, Vancouver, B.C. (Dr. de Guise Vaillancourt, Secretary, Canadian Rheumatism Association, Hôtel-Dieu Hospital, Montreal 18, Que.) June 18, 1958.

CANADIAN DERMATOLOGICAL ASSOCIATION, Annual Meeting, Halifax, N.S. (Dr. Gibson E. Craig, Secretary, Suite 6, 1390 Sherbrooke St. West, Montreal 25, Que.) June 19-21, 1958.

CANADIAN PSYCHIATRIC ASSOCIATION, Annual Meeting, Halifax, Nova Scotia. (Dr. Charles Roberts, P.O. Box 6034, Montreal, Que.) June 20-21, 1958.

INTERNATIONAL FERTILITY ASSOCIATION, Windsor Hotel, Montreal, Que. (Dr. Walter W. Williams, 20 Magnolia Terrace, Springfield 8, Mass., U.S.A.) June 20-22, 1958.

INTERNATIONAL FEDERATION OF GYNÆCOLOGY AND OBSTETRICS, 2nd Congress, Montreal, P.Q. (Professor Léon Gérin-Lajoie, Suite 313, 1414 Drummond Street, Montreal, P.Q.) June 22-28, 1958.

10TH INTERNATIONAL CONGRESS OF GENETICS, Montreal, P.Q. (Mr. J. W. Boyes, General Secretary, 10th International Congress of Genetics, McGill University, Montreal, P.Q.) August 20-27, 1958.

UNITED STATES

INTERNATIONAL SOCIETY OF GASTROENTEROLOGY, 3rd World Congress, Washington, D.C. (Dr. H. M. Pollard, University Hospital, Ann Arbor, Michigan.) May 25-29, 1958.

AMERICAN GOITER ASSOCIATION, Annual Meeting, San Francisco, Cal. (Dr. John C. McClintock, Secretary, 149½ Washington Ave., Albany 10, New York.) June 17-19, 1958.

AMERICAN MEDICAL ASSOCIATION, Annual Meeting, San Francisco, California. (Dr. George Lull, 535 North Dearborn Street, Chicago 10, Ill.) June 23-27, 1958.

OTHER COUNTRIES

IV INTERNATIONAL CONGRESS FOR CHILD PSYCHIATRY, Lisbon, Portugal. (Prof. Dr. Vitor Fontes, President, IV International Congress for Child Psychiatry, Instituto A. A. da Costa Ferreira, Travessa Terras de Santana, 15, Lisbon.) June 15-20, 1958.

PROVINCIAL NEWS

ALBERTA

The Second Annual Seminar on Mental Health in Industry, sponsored by the Calgary Branch of the Canadian Mental Health Association, was held in Calgary on March 24 and 25. One hundred and fifty members were registered. Dr. David Lander of Black Diamond, who organized the seminar, was in the chair for the morning session when speakers were: Dr. E. P. Scarlett, Chancellor of the University of Alberta, Dr. Julius Guild and Dr. Stanley Greenhill.

Other medical men who took part in the program were: Dr. J. Crosby Johnston, Administrator, Calgary General Hospital, Dr. F. W. Hanley, and Drs. K. A. Hamilton and J. A. L. Gilbert, clinical professors in medicine at the University. The subject matter proved to be of great interest and arrangements were made to hold another seminar in Calgary next spring.

The Alberta Division of the Canadian Cancer Society has forwarded a resolution to the national society urging a positive stand against cigarette smoking. An educational program is suggested to make smoking unfashionable amongst young people.

At the annual meeting of the Alberta Chapter of the College of General Practice the following officers were elected: Dr. H. A. Lloyd, president; Dr. A. A. Gorman, secretary; and Dr. M. Dolgoy, treasurer.

The twenty-sixth annual refresher course was held from April 28 to May 2. The course was sponsored by the Canadian Medical Association, Alberta Division, and the University of Alberta, Faculty of Medicine. Arrangements were made by the Refresher Course Committee, Faculty of Medicine, with Dr. H. E. Duggan as chairman. The guest speakers this year were Sir Walter Mercer, Emeritus Professor of Orthopaedic Surgery, University of Edinburgh, past president of the Royal College of Surgeons of Edinburgh; Dr. R. F. Farquharson, Professor of Medicine, University of Toronto; and Dr. N. S. Assali, Department of Obstetrics and Gynecology, University of California Medical Center. Sir Walter delivered the Fulton Gillespie Memorial Lecture, speaking on surgery in Russia—impressions of Russian surgery following a recent visit.

A feature of this year's course was luncheon panels in which the speakers of the morning sessions answered questions on the morning's topics.

During the course, meetings were held by the Defence Medical Association, the Edmonton Academy of Medicine, and the Division of General Practice.

W. B. PARSONS

SASKATCHEWAN

Dr. L. S. Fallis, surgeon in chief of the Henry Ford Hospital, Detroit, Michigan, visited Saskatoon in April. While here he delivered a lecture at the University Hospital on pancreatitis.

The University of Saskatchewan is one of the four Canadian universities among the 25 of the continent whose candidates were successful in obtaining annual

awards from the John and Mary Markle Foundation of New York City. Under the terms of the scholarship the University received \$6000 a year for five years, which may be devoted to salary, travel and research expense of the scholar. The University of Saskatchewan's candidate was Dr. Gerald Hall Holman, who graduated from the University of Manitoba. Dr. Holman will take up an appointment as assistant professor of paediatrics and will set up a laboratory in the new Cancer and Research Building for the study of disorders of endocrine glands in children.

The Cancer and Medical Research Building was opened officially on Saturday, May 10.

World University Service of Canada has organized a study tour seminar in Yugoslavia this year. It will be attended by 35 Canadian students of whom two are selected by the University of Saskatchewan. Dean Francis J. Leddy of the University of Saskatchewan will be the director of the delegation and co-chairman of the conference. Dean J. Wendell Macleod of the College of Medicine will be serving as a faculty member.

The Canadians will leave Montreal on June 23, for a week of lectures and briefing outside London, and then fly to Belgrade on July 4.

Professor E. M. Nanson, of the Department of Surgery in the University of Saskatchewan, will be absent during July and August conducting a post-graduate course at the Christchurch Hospital and in other centres in New Zealand.

At a recent meeting of the Saskatchewan Paediatric Society, Dr. L. G. Bray of Moose Jaw was elected president; Dr. W. S. Kinnear of Saskatoon vice-president; and Dr. O. E. Laxdal of Regina secretary-treasurer.

Dr. Clifford C. Jungfer of Lobethal, South Australia, who is visiting North America under the auspices of the College of General Practice of Australia, spoke in Saskatoon during April on "Some Impressions of Practice in Australia with its Incidental Problems."

G. W. PEACOCK

ONTARIO

The advent of hospital insurance has brought to the fore the complex relationships of hospitals, doctors and patients. The place of the doctors in the scheme is being gradually clarified.

The Ontario Medical Association, through the Board of Directors, working with the Committee on Economics and with the Sections of Radiology, Clinical Pathology, Cardiology and Physiatrics, drafted a general outline of the position which the Association is taking on behalf of the doctors. This outline showed the Association to be in favour of, first, basic ward coverage for every citizen; second, commission administration; third, the separation of medical from hospital services in financing and administration; fourth, the payment of medical services on a fee-for-service basis. These conclusions formed the basis of a brief to the Legislative Committee on Health. The brief was well received.

Following the presentation of this brief the government set up a Commission, originally of three members but now of six. One of these, Dr. R. W. I. Urquhart, is a nominee of the O.M.A.

At present the Executive Committee of the O.M.A. acts as a liaison committee with the Commission, meeting when there is an important matter to discuss. These meetings have afforded the Association an opportunity to put the views of the profession forward for the consideration of the Commission.

The first of the three main items of study has been the extent of the basic plan, that is, whether it was to be an in-hospital plan or whether it would include outpatients. On the advice of the Association it is being started as an in-hospital plan. The second item concerned the drugs to be supplied to insured patients. On the recommendation of the Association, this is being left to the good judgment and common sense of the doctors. The third item, the administration of accounts of doctors whose services are being insured by the plan, has not reached any final decision. Negotiations are continuing.

The Sections of Clinical Pathology, Radiology, Cardiology, Physiatry and Psychiatry have each had their own study committee, which has worked with the judicial committee appointed by the Board of Directors to make recommendations as to the best method of administering insured medical services. There are peculiar problems in each section regarding administration, supervision of technical personnel and the specific professional service rendered. These factors have necessitated varied approaches by the different sections.

Other questions studied are the peculiar needs of teaching hospitals, as regards the requirement of teaching beds and the added costs of this investigative type of medicine. Meetings have been held with the deans of the four Ontario medical schools. A full-scale discussion of this matter is to be held with the Commission in the near future.

Another facet of hospital service is the need for more nursing and technical personnel. The nursing problem has been studied by the Council on Nursing, an advisory committee to the Minister of Health, composed of members of the Registered Nurses Association of Ontario, the Ontario Hospital Association, the Department of Education, the O.M.A. and the Nursing Division of the Department of Health.

Provision of more technicians is being studied by a committee from the Section of Clinical Pathology working with the Ontario Hospital Association, the Society of Laboratory Technologists, and the Commission. This study will likely result in the establishment of central schools where the didactic portion of the technologist's training can be given.

Since the announcement by the government of its intention to put into effect the plan of hospital and diagnostic services insurance, there has been some apprehension among the doctors about the long-range implications of closer government control of health services. This has developed an interest in medical economics, resulting in many meetings where the actions and the recommendations of both the government and the O.M.A. have been critically reviewed.

A special meeting of Council gave detailed consideration to the whole program and endorsed the action taken by the Board of Directors to date.

Following the Council meeting, the Board of the O.M.A. established a committee to be known as the

Special Committee on Medical Care in Ontario. It was given the following terms of reference: (1) to study the medical care which is being provided or in the future might properly be provided by government; (2) to study the aspects of medical care which now or in the future are or should be provided by private enterprise as exemplified by private practice, prepaid plans, and insurance companies; (3) to study the failings of free enterprise, as seen by themselves and as described by others, and to provide recommendations for meeting any deficiencies so discovered.

If the medical aspects of the hospital insurance plan are to be satisfactory to the medical profession, it is necessary to have every doctor concerned and informed, supporting an alert Board of Directors which has proper liaison with the policy-making and administering bodies.

LILLIAN A. CHASE

On April 22 the Toronto Academy of Medicine held its first special meeting of the current year, when Sir Walter Mercer, who until April 1 was professor of orthopaedic surgery in the University of Edinburgh, described his recent experiences on a visit to Russia. Sir Walter, who was on his way to a joint meeting of all the English-speaking orthopaedic associations in Washington, was warmly greeted by a large attendance, which included a number of Fellows of the Royal College of Surgeons of Edinburgh, of which Sir Walter was recently president.

Sir Walter noted the continued interest at the Sklifosovski Hospital, Moscow, in oesophageal replacement (strictures of the oesophagus are common and sometimes due to accidental consumption of sulphuric acid); the tendency now is to replace the oesophagus with a section of large bowel, and not small bowel. He noted the enormous numbers of transfusions given in Moscow with cadaver blood, and described the central ambulance station which services 600 calls in each 24 hours. He also described some of the interesting and "fantastic" phenomena of Russian experimental surgery, though doubting whether such experiments as the resuturing of a completely amputated thigh in a dog had any practical application. He showed some pictures of orthopaedic deformities, including the most fantastic case of genu recurvatum which his audience had ever seen.

Sir Walter's general impression of his trip was of a kindly and hospitable people with a definite aristocracy, and as another traveller had suggested, no nonsense about "equality".

Construction has started on the new University of Toronto dental building which will cover an entire central city block and was designed by Allward and Gouinlock for occupancy in the fall of 1959. Facilities will provide for an ultimate undergraduate enrolment of 725, compared with 417 this year.

QUEBEC

Dr. Warren H. Cole, professor of surgery at the University of Illinois College of Medicine, addressed the Montreal Medico-Chirurgical Society on March 7 on the subject "The Dissemination of Cancer". Cancer spreads either by extension or by hæmatogenous or lymphatic dissemination. Much effort is being directed towards the "anti-cancer" chemicals in preventing recurrence of the disease in humans, from implantation

or other complications. Although experiments on animals during the past two years have been successful, it may take at least five years to test their efficacy on humans. Partial success in preventing recurrences after cancerous tumours have been removed has been achieved with certain types of growths.

The same Society presented on February 21 a most interesting and timely symposium on the role of the general practitioner in hospital practice. The moderator was Dr. W. R. Slatkoff, Medical Director of the Jewish General Hospital, Montreal, and panel members were Dr. Charles C. Cooper of the American Academy of General Practice, Dr. Coleman B. Solursh of the department of general practice, Mount Sinai Hospital, Toronto, Dr. Murray R. Stalker of Ormstown, Que., and Drs. Newell W. Philpott, Gordon A. Copping and J. J. Griffith of Montreal. Hospital staff privilege has become a rather controversial subject. Specialization developed principally for the purpose of assuring the highest medical care for the patient. Has specialization grown, however, to the extreme where it tends to take over complete patient care? What is a general practitioner? Is there an increasing gap between those who practise in the community and those who practise in the general hospitals? Are our hospitals closed and do they operate for the benefit of the specialist and not for the benefit of the patient? How can the general practitioner be added to the hospital staff and how will this affect quality of training and of practice? These and many other pertinent problems were discussed and evaluated. In summing up, all agreed that we all make up one whole profession whose prime purpose is to help the ill patient with all and every means possible. Therefore, emphasis must be on unity in the profession.

A dramatic medical telecast was made in Montreal on March 7 with the closed-circuit telecasting of patients under the fluoroscope at Jean-Talon Hospital, to an audience of more than a hundred physicians at the Hôtel-Dieu, three miles away. The demonstration was part of the regular meeting of the Montreal Medical Society, presided over by Dr. L. P. Belisle. Advanced electronic and other special equipment, valued at \$70,000 and developed by Philips Electronics Industries Ltd., was used in the demonstration. It included the Jean-Talon Hospital's large new x-ray installation, Philips closed-circuit television cameras and receivers and the "image amplifier". Dr. Guy Duckett, radiologist, provided a running commentary from the scene of the telecast at Jean-Talon Hospital. Supplementing him at Hôtel-Dieu was Dr. Albert Jutras, chief of the radiology department at the institution.

The four patients examined were actually being diagnosed at the viewing. The x-rays were directed down through the patient to a fluoroscopic screen under the table, which was enclosed in a lightproof cabinet. The screen was an integral part of the "image amplifier", which gave a bright, clear image to the TV lens. This meant that the patients were actually examined in a well-lit room. This can be helpful in examining nervous patients. Viewing was done in a normally lighted room. Therefore, this system does not require eye conditioning, the wearing of red goggles for 10 to 15 minutes before examination. Furthermore, the doctor is removed from the danger

of cumulative x-ray radiation. Because of the sensitivity of the amplifier, intensifying the fluoroscopic image one thousand times, only some 25 to 33% of normal radiation is necessary. The demonstration was considered a great success.

The Hôtel-Dieu Hospital in Montreal was host to La Société Médicale de Montréal with a clinical evening on March 11. There were 36 clinical exhibits and every department and service of the hospital was represented. There was also an excellent turn-out.

Dr. Jonathan C. Meakins, president of the Montreal Mental Hygiene Institute for the past ten years, retired on March 12 amid tributes from his colleagues at the Institute's annual meeting.

The annual Dandurand-Wright Memorial Lecture was given by Dr. John H. Talbott, professor of medicine, University of Buffalo, on March 5 at the Hôtel-Dieu Hospital in Montreal. He spoke on the uric acid disturbance in the patient with gout. Recent developments, especially the introduction of radioactive isotope tracer techniques, have made it possible to study disturbances in metabolism with far greater success than heretofore. Such researchers are now unfolding a much clearer picture of the pathology in gout. These lectures are presented annually under the auspices of the Canadian Arthritis and Rheumatism Society, Quebec Division.

A. H. NEUFELD

NEW BRUNSWICK

The sixth Spring Clinical Session of the Saint John Medical Society this year featured surgery. The meetings were held at the Saint John General Hospital and the Lancaster D.V.A. Hospital. These meetings are part of a program of postgraduate education in the Atlantic provinces—a joint effort of Dalhousie University and the New Brunswick Medical Society. The College of General Practice of Canada gives credit for 14 hours of formal study to those attending the sessions.

Dr. R. G. Macdonald was chairman of the organizing committee and Dr. L. J. Stevenson was in charge of entertainment. The guest speaker this year was Dr. John M. McGowan, assistant clinical professor of surgery of Tufts College Medical School. Dr. McGowan was warmly welcomed as a son of Prince Edward Island—returning from the "Boston States" for a visit with the home folks.

Dr. McGowan spoke on "The medical management of metastatic carcinoma", "Massive gastro-intestinal hæmorrhage", and "Biliary disease". Dr. H. O. Tønning and Dr. J. A. Finley gave "A review of the medical management and surgical treatment of ulcerative colitis". Dr. O. J. White discussed "Fractures of the femur". Dr. W. D. Miller's paper was on "The use of arteriography in diagnosis". Dr. R. T. Hayes presented "Modern indications for tracheotomy". Dr. H. J. Rosen talked of "Neurological aspects of subarachnoid hæmorrhage". "Venous disorders of the lower extremities" was the subject presented by Dr. S. Milrod as moderator of a panel.

Chairmen for the several sessions were Dr. H. O. Tønning, Dr. W. D. Miller, Dr. Arnold Branch, Dr. J. P. McNerney and Dr. R. M. Pendrigh.

The clinical-pathological conference was directed by Dr. H. A. Bird. The visitors were able to visit the newly completed radiotherapy department in the new wing of the Saint John General Hospital, where the cobalt bomb is installed. The attendance of out-of-town doctors is evidence of continuing interest.

A. S. KIRKLAND

Dr. A. Stanley Kirkland was honoured by the Commissioners of the Saint John Tuberculosis Hospital on April 14. Following the monthly meeting of the Board of Commissioners a social hour was held and Dr. Kirkland was the special guest. The occasion was planned to honour him for the excellent service he had rendered the hospital as consultant roentgenologist from December 1922 to December 1957.

On behalf of the Commissioners, Dr. A. L. Donovan presented Dr. Kirkland with a suitably engraved sterling silver tray. All members of the Board present and Dr. Macpherson, the hospital superintendent, spoke briefly on the long and pleasant association with the guest. Dr. Macpherson emphasized the point that through the years Dr. Kirkland's availability and accuracy were of the highest order.

A. L. DONOVAN

NOVA SCOTIA

Nova Scotia doctors and druggists have been asked by the Halifax civic committee to seek legislation providing for stronger control over barbiturates and tranquilizers.

The Nova Scotia Medical Society and the Nova Scotia Pharmaceutical Society have recently gone on record as willing to take action at the City's request in pressing for provincial legislation that would tighten the control over the distribution of barbiturates, and make it an offence to have the drugs without a prescription. The Halifax Medical Society has also gone on record as expressing great concern regarding the recent reported developments in the abuse and misuse of certain drugs, and has expressed a desire to co-operate in all ways with civic and other authorities in an effort to control this practice. Mayor Vaughan of Halifax has stated that he welcomes the action of the two societies mentioned above, and of the newspapers in drawing public attention to the damaging effect of barbiturates on the youth of the city.

We do not believe that the illicit taking of barbiturates and tranquilizer type of drugs is widespread. There are some instances where youths have pilfered these drugs from drugstores, from doctors' cars and from doctors' offices. Some druggists have estimated that from 23 to 50% of the drugs dispensed over their counters are barbiturates.

Dr. Carl J. Mader, a 1954 graduate of Dalhousie Medical College, attained the second highest standing in the recent Ohio State Medical Examinations held at Columbus.

Dr. Mader is at the present time Chief Resident at the St. Thomas Hospital, where he is completing his fourth-year graduate course in internal medicine. He and Mrs. Mader plan to return to Nova Scotia this coming summer.

Dalhousie University has seen fit to approve a reduction of Student Council fees for medical students

in their final and fifth years of studies, from eight to three dollars, following a request along these lines from the Dalhousie Council of Students. Proposal to reduce the medical representatives' fees was made to the Council by their representatives, Kempton Hayes and Al. Hebb, both of Halifax, on the grounds that many fifth-year students spent their time interning outside the city, while even those who remained in the Halifax area had practically no time to participate in campus activities.

WALTER K. HOUSE

PRINCE EDWARD ISLAND

Our congratulations are extended to Dr. Roderick J. MacDonald of St. Peter's Bay on the completion of his first century. Dr. MacDonald is 100 years old on May 16. He graduated from Trinity University, Toronto, in 1888 and must have the longest record of medical practice in Canada.

CANADIAN ARMED FORCES

Dr. J. A. MacFarlane, Chairman, Canadian Forces Medical Council, and Dean, Faculty of Medicine, University of Toronto; Dr. A. W. Farmer, Consultant Orthopaedic Surgeon to the Canadian Armed Forces, and Surgeon-in-Chief, Hospital for Sick Children, Toronto; Dr. Desmond Magner, Canadian Forces Medical Council Consultant in Pathology to the Canadian Armed Forces, and Professor of Pathology, University of Ottawa; Air Commodore A. A. G. Corbet, Director General Medical Services (Air), Royal Canadian Air Force, Ottawa; Lt.-Col. J. D. Galloway, Royal Canadian Army Medical Corps, Canadian Joint Staff, Washington; W/C J. C. Wickett, Royal Canadian Air Force, Canadian Joint Staff, Washington, accompanied Dr. Frank B. Berry, the Assistant Secretary of Defense (Health and Medical), and other U.S. officials on the annual meeting and tour of various United States Air Force Bases in the U.S.A. during the week of March 16, 1958.

Sir Harry Wunderly and Lt.-Col. D. J. Stevens, Royal Australian Medical Corps, Consultants to the Defence Department, visited the Director General Joint Medical Services and members of Joint Services Medical Board at Ottawa, March 17, 1958. Discussions were held with representative Service officers with regard to tuberculosis control and radiological apparatus and techniques. Later, visits were made to Rockcliffe Station Hospital and No. 1 Central Medical Equipment Depot to see the types of equipment and their application. They also visited the Personnel Research Division of the Defence Research Board and the Chief Officer, Personnel Selection, Army.

Colonel P. A. Costin, R.C.A.M.C., and Colonel J. S. McCannel, R.C.A.M.C., attended a Mass Casualties course at Brooke Army Medical Center, San Antonio, Texas, February 23-28, 1958.

Lt.-Col. M. Fitch, R.C.A.M.C., and Lt.-Col. B. L.*P. Brosseau, R.C.A.M.C., attended a course on medical care of atomic casualties at Walter Reed Army Medical Center, Washington, D.C., March 24-29, 1958.

Group Captain B. R. Brown, C.D., representing the Director General Medical Services (Air), and other R.C.A.F. representatives attended the Annual Meeting of the Aero Medical Association held in Washington, D.C., March 24-26, 1958. Six scientific papers were presented at the meeting by R.C.A.F. medical officers.

BOOK REVIEWS

PRINCIPLES OF GYNÆCOLOGY. T. N. A. Jeffcoate, Professor of Obstetrics and Gynæcology in the University of Liverpool, England. 669 pp. Illust. Butterworth & Co. (Canada) Ltd., Toronto, 1957. \$15.00.

The first edition of a textbook is always a matter of interest, and doubly so when the writer is as highly thought of and as widely known as Professor Jeffcoate. While intended primarily for the undergraduate student and resident, it is also an ideal text for that keener type of general practitioner who derives satisfaction from keeping abreast and for whom it would provide a complete, up-to-the-minute survey of the field of gynæcology. It is not, however, the usual orthodox type of textbook and the preface sheds further light on its character: "Moreover, it is aimed at the student at the top of the class rather than the one at the bottom. The latter is already well supplied with cram books; the former suffers from a lack of those which can offer more than his examiners demand and which satisfy, or arouse without satisfying, his enthusiasm and curiosity."

The emphasis is on clinical or medical gynæcology; descriptions of operative techniques are excluded, and no references are given because, in the author's words, they "clutter up the text and destroy continuity." Where there are controversial views the writer expresses his own, invariably sound, opinions: bearing in mind the purpose of the book, this is probably advantageous.

The direct and easy style is a delight to read and each of the 46 chapters is a concise, authoritative record of present-day thinking on the topic discussed. As stated in the preface, the author emphasizes subjects considered difficult to understand and also some that are relatively rare: this is reflected in the excellent chapters on maldevelopments of the genital tract, intersexuality, and ovarian tumours. Some sections have a very practical flavour of obvious value to both gynæcologist and general practitioner: e.g. abnormalities of menstruation, low backache, problems of sex and marriage, sex hormone therapy, and an excellent chapter on hysterectomy and its aftermath. The author states that he nearly always conserves at least one ovary in all women who are not suffering from malignant disease and who are still menstruating.

As would be expected, the subject of genital prolapse is well covered. Some few surgeons may note the omission of mention of the Watkins interposition operation and the Spaulding-Richardson composite technique. Those who learned their plastic work in the North of England will especially cherish this pertinent remark on the Manchester operation: "Many gynæcologists throughout the world do not think so highly of the operation but this is mainly because the technique as often practised would not be accepted in Manchester as the Manchester operation."

The book is well illustrated with 12 excellent colour plates and 436 photographs and photomicrographs: all are well chosen, well reproduced and helpful; the sketches are particularly well done and their value is exemplified in the excellent diagrammatic representation of the League of Nations classification of cervical carcinoma.

Only rarely does a book appear that so perfectly fulfils the purpose for which it has been intended: for the student, the intern, the general practitioner and the teacher of gynaecology, this book is unreservedly recommended as one of the outstanding contributions of its kind.

AORTOGRAPHY: Its Application in Urological and Some Other Conditions. W. Barr Stirling, Senior Assistant, Urological Department, Glasgow Royal Infirmary, Scotland, 292 pp. Illust. E. & S. Livingstone Ltd., Edinburgh and London; The Macmillan Company of Canada Limited, 1957. \$8.50.

Aortography is being performed with increasing frequency today. Its use as a diagnostic aid is, however, relatively recent and dates from a description of the technique by Dos Santos in 1929. Since that time, opinions have differed regarding the usefulness of the examination in view of the potential dangers involved. In the present book, W. Barr Stirling reports on personal experience with some 500 aortic punctures. A contribution such as this helps establish the role of this diagnostic test when carried out proficiently.

The book is divided into two sections, the first dealing with technique and the second with specific conditions for which the examination has been used. After a brief historical review of the x-ray visualization of blood vessels, the several factors involved in performing aortography are discussed. Before the actual procedure is described, chapters are devoted to surgical anatomy, armamentarium, and anaesthesia. After a description of the actual technique, the author discusses in detail the interpretation of the aortogram, the pressure factors which develop in the aorta, and the hazards and complications of the procedure.

An analysis of specific conditions for which aortography is useful comprises the major portion of the book. Renal conditions are stressed with brief mention of intrinsic aortic disease and diseases of other organs for which aortography is useful. Each chapter starts with a brief description of the usefulness of aortography in the diagnosis or management of the specific condition under consideration (e.g. renal tumour). This is followed by brief case studies. Included is a photographic reproduction of the aortogram with a brief description of the changes to be noted. The renal conditions considered include congenital anomalies, cysts, tumours, unilateral renal bleeding, hydronephrosis, calculus, tuberculosis, hypertension and hyperplasia. Short chapters are also included on the use of aortography for diseases of the adrenals and other organs, as well as some other urological conditions (e.g. renal trauma, renal artery aneurysm).

The clarity of the text and the excellence of the aortographic reproductions are most impressive. The beginner in aortography will find the book of extreme value, not only for the clear descriptions of technique but also for the collection of reference aortograms of major pathological conditions. Those with some experience in aortic puncture will find the chapters on

pressure factors and hazards and complications most informative. The author has demonstrated that when sufficient experience is obtained with the procedure aortography is a safe test and often of considerable diagnostic assistance.

ESSENTIALS OF CHEMICAL PATHOLOGY. D. N. Baron, Reader in Chemical Pathology, Royal Free Hospital School of Medicine, London, England. 247 pp. Illust. The English Universities Press, London, 1957. 25s.

There has been and always will be a need for a text dealing with the essentials of chemical pathology. Dr. Baron has met this need admirably. From his experience in teaching students and dealing with clinicians who have brought their bedside problems to him, Dr. Baron has compiled a text that is of much use to both the student and clinician. Many generations of students at different universities have complained that chemical pathology is too vast a subject to understand adequately. Here they will find the information that they should have to make good doctors and to pass examinations. The clinician will find the details which he wishes to refresh his memory and perhaps remind him of details that should be investigated in handling a specific patient.

Water, electrolytes, acidosis and alkalosis, carbohydrates, proteins and lipids are dealt with in logical sequence. The metabolism of endocrine glands, bones, liver, kidneys, gastro-intestinal tract and cerebrospinal fluid are all adequately but concisely reviewed.

Dr. Baron has presented chemical pathology as it should be presented.

HALSTED OF JOHNS HOPKINS. The Man and His Men. Samuel James Crowe, Professor Emeritus of Laryngology and Otology, The Johns Hopkins University, Baltimore, Md. 247 pp. Illust. Charles C Thomas, Springfield, Ill.; The Ryerson Press, Toronto, 1957. \$5.50.

Johns Hopkins University, marking as it does a decisive point in the development of American medicine, has the same fascination for American medical historians as that other decisive point, the Civil War, has for their lay historians. The present book deals with the founder of Johns Hopkins surgery, Halsted, and some of the men he inspired.

Halsted was a man of great courage and resource. As a young man he saved his sister's life by transfusing her directly with his blood (the first successful transfusion in the U.S.A.), and soon afterwards saved his mother's life by removing her gallstones during an episode of cholecystitis (his first gall-bladder operation). But even more remarkable was his completely successful battle against cocaine addiction, contracted in the cause of science, for Halsted was a pioneer in local anaesthesia. His many contributions to surgery are recounted in this book by Dr. Crowe, who was one of his keenest disciples and who died of a coronary thrombosis just after completing the work.

Crowe owed his dedication to medicine to a chance encounter with Halsted, when Crowe's horse went lame near the Halsted farm; Halsted even persuaded him to change his specialty from neurosurgery to otolaryngology, in which he subsequently rose to fame. Among the other biographical sketches in the book are those of Cushing and Dandy the neurosurgeons, and Young, the father of American urology. The book is a definite and firsthand contribution to Johns Hopkins lore, and therefore to American medical history.

TUBERCULOSIS: EVERY PHYSICIAN'S PROBLEM. J. Arthur Myers, Professor of Internal Medicine and Public Health, Medical and Graduate Schools, University of Minnesota, Minneapolis. 290 pp. Illust. Charles C Thomas, Springfield, Ill.; The Ryerson Press, Toronto, 1957. \$8.25.

This excellent monograph has been prepared by a physician with an international reputation in the field of tuberculosis. It is written in a terse and somewhat conversational style, apparently with the intention of reaching a large cross-section of the population, including the general practitioner, the tuberculosis specialist, the medical student, and even, possibly, the well-informed layman. Under these circumstances, there cannot help but be a slight lack of uniformity in subject treatment, which is highly sophisticated in some fields and somewhat elementary in others. Nevertheless, the author has been most successful in the inclusion of many aspects of the "tuberculosis problem" in a small volume. For example, there is a section on the different types of pathogenic tubercle bacilli and the various species of animals that they invade, and attention is also given to non-pathogenic acid-fast bacilli; both of these subjects are usually reserved for larger texts.

A most welcome section is that entitled "Anachronisms", in which the author lists and discusses many of the outworn ideas about tuberculosis that have become current in lay and even medical thought and disposes of them, it is to be hoped, once and for all. He stresses the obvious fact that public-health funds now being used to finance obsolescent practices should be diverted from these and channelled into projects more in keeping with present-day medical thought in the control and treatment of tuberculosis. Special emphasis is placed on the role of the physician, not only from the standpoint of diagnosis and treatment, but also in connection with organization and education in the newer methods for the eradication of tuberculosis.

The book is strongly oriented in the direction of public health and epidemiology, which is to be expected, since the author's major interest lies in this field. One would have perhaps wished to see more discussion of the fascinating advances in the treatment of tuberculosis, which have evolved during the past few years. Furthermore, the book, as is to be expected, embodies the author's well-known personal views, which can be summarized thus: (a) in favour of the tuberculin test; (b) against B.C.G.; and (c) in favour of giving all credit for the recent fall in tuberculosis mortality to epidemiological measures and none to the antimicrobial agents. There is also an obvious lack of enthusiasm for the use of steroids in meningeal and other forms of tuberculosis, a mode of treatment that is becoming increasingly popular throughout the world.

Many present-day tuberculosis workers might take exception to sentences such as the following: "The only preventive measures that have proved valuable are those used in an offensive attack against the tubercle bacillus, consisting in part of finding in which human and animal bodies these organisms reside and preventing them from reaching the bodies of others"; or "It appears, therefore, that numerous changes may now be occurring among tubercle bacilli caused by anti-tuberculosis drugs. If resistant mutants tend to predominate, present drug treatment of tuberculosis may become complicated"; or "Regardless of age, all persons who do not react to tuberculin should be retested every

year and preferably more often"; in connection with B.C.G. vaccination, "There is no evidence that it prevents subsequent invasion of tubercle bacilli from natural sources"; and, in connection with tuberculous meningitis, "though there are many persons, children and adults, now living who would have died without the administration of antituberculosis drugs, there is no absolute assurance that meningitis may not later recur nor is there any likelihood that tubercle bacilli have been destroyed in the multiple lesions and elsewhere in the body."

But these minor criticisms merely mirror the convictions of the author, to which he is most certainly entitled by virtue of his massive knowledge and experience in the prevention and treatment of tuberculosis. They add to the interest and the slightly controversial flavour of the book as a whole, and render it required reading for every physician interested in tuberculosis, whether in the preventive or therapeutic field.

The paper stock is excellent and not over-glazed, and the print is clear, sharply defined and easily read.

ALCOHOLISM: A TREATMENT GUIDE FOR GENERAL PRACTITIONERS. Donald W. Hewitt, Los Angeles. 112 pp. Lea & Febiger, Philadelphia; The Macmillan Company of Canada Limited, Toronto, 1957. \$3.00.

Here is another small book intended to bring to the general practitioner an understanding of the problem drinker and the management of his case. This readable book on first impression makes no new or unique contribution to the literature in the field, although in many ways it is difficult to be critical of it.

One feels at times that it is slightly patronizing in reference to the alcoholic, particularly when phrases such as the "typical alcoholic" are used, phrases which are perhaps rather commonly used in speech but conveying little meaning, or even a mistaken meaning, when committed to the printed page. One wonders, too, how far the physician should actually regulate the alcoholic's life, as suggested in the references to contacts between males and females. One can certainly agree with the statement, however, that "the general practitioner should be in the vanguard of those leading the attack on what has been aptly termed our greatest unsolved public health problem".

Emphasis is given to the statement that the best results in treatment of alcoholism will be realized if it is commenced with the full and voluntary consent and co-operation of the patient. This is an oversimplification which is not accepted by all in the field. Perhaps equal emphasis should be given to arousing the physician's interest in the means legally available for compulsory treatment for the protection of the patient and those around him.

There are many, too, who will take exception to the statement that the overwhelming majority of alcoholic cases are not psychiatric in nature. It is true, as the author suggests, that in many instances the patient can be persuaded more easily to go to a general hospital than a psychiatric one, and that there are certain advantages and conveniences in using the general hospital, and in persuading general hospitals to accept this type of patient, but this is far different from an acceptance that psychiatric problems are not of major, if not overwhelming, importance in almost all alcoholic people.

It is gratifying to note that the author has specifically separated out the phenomenon of blackout, but one wonders why it is considered among the psychoses. One also would like to observe that, while blackout is mentioned very frequently among the phenomena of the alcoholic's experience, the literature contains almost no useful reports, either theoretical or practical, with reference to the nature of this finding.

The use of test reactions to the drug disulfiram (Antabuse) is reported in some detail, which is valid as an explanation of the way in which the drug works. However, there has been an increasing tendency in recent years for clinics not to find such a test necessary, or in fact even useful. Very wisely, the author has made reference to other drug problems, and particularly the danger of the patient's becoming habituated to other drugs in his efforts to escape from the use of alcohol.

The book will interest those wanting some introduction to present-day thinking about the subject, although this reviewer prefers the earlier publication by Fritz Kant, "The Treatment of the Alcoholic". The book will not be sufficient for those involved to any considerable degree in the management of alcoholic cases.

HANDBUCH DER ALLGEMEINEN PATHOLOGIE (Handbook of General Pathology), Vol. 4; Metabolism, Part II. Edited by F. Büchner, E. Letterer and F. Roulet. 861 pp. Illust. Springer-Verlag, Berlin, Göttingen and Heidelberg, 1957. D.M. 198.00.

That this volume has appeared before its companion and chronological forerunner on the metabolism of proteins, fats, etc., does not matter, for it is self-contained. It begins with essays by Heilmeyer of Freiburg on the biochemistry and the pathology of the heavy metals found in the body, with chief emphasis of course on iron and copper. So rapid is the expansion in this field that Wöhler has felt bound to include a supplement on iron and copper at the end of the book, noting papers that had appeared during the process of publication (this has an extra five pages of references in small type).

There is a valuable monograph on the biochemistry of hæmoglobin and its relatives—cytochromes, porphyrins, etc.—followed by one on their pathology. This precedes long discussions of intermediate metabolism, and cell and tissue respiration. The next theme is a description of the general reactions in acute and chronic hypoxia, followed by a chapter on the organ and cell changes (liver, heart, brain) in hypoxic conditions, to which is added a section on the production of malformations by oxygen lack.

Lastly there is an unusual chapter on the electrical relationship in metabolism, in which the importance of cell membrane potential changes for cell function is made clear, and various problems associated with these changes are expounded.

The volume, like its predecessors, contains an enormous bibliography (there are over 50 pages of authors' names in the index), and the latter pays full tribute to American contributions. It is not surprising that occasionally a harassed printer has made errors in titles in English or produced an international salad such as "Studien in copper metabolism" or "New Engl. Z. Med.", as a sign that even the great house of Springer is human.

The commendable industry of the contributors has nevertheless produced a readable account of subjects of interest to biochemist and clinician alike; the prevailing feeling left with the reader is that in spite of all our industry we still know very little about some fundamental processes.

THE HEALING OF WOUNDS. Edited by Martin B. Williamson, Loyola University, Chicago. 202 pp. Illust. McGraw-Hill Company of Canada Limited, Toronto, 1957. \$7.35.

This small book is in effect a symposium on the healing of wounds which was held at the Stritch School of Medicine, Loyola University, Chicago. As noted in the preface, the symposium did not cover all the research that had been or was being carried out on the problem of wound healing, but did delineate the more recent significant work and attempt to point the direction for future study.

Several of the contributors to the symposium are biochemists, as is the editor himself, and one feels that this symposium will be of little value except to the biochemist or the research worker in clinical fields who is primarily interested in the metabolism of wound healing. Some of the chapters are filled with biochemical data the nature of which would be completely foreign to the average reader of this journal.

However, the chapter on "Clinical Approaches to the Concepts of Wound Healing" is well written and reaffirms the fundamental principles, particularly in surgical wounds, of adequate exposure, meticulous hæmostasis, elimination of dead space, and minimizing the tension in a closed wound.

The bibliography which accompanies the papers submitted by the individual contributors is extensive.

CHIRURGIE A CŒUR OVERT (Open Heart Surgery). C. Dubost and P. Blondeau, Paris. 320 pp. Illust. Masson et Cie, Paris, 1957. 3000 Fr. fr.

In a 320-page book, illustrated with black-and-white drawings and some photographs, the authors give a concise, well-planned review of the applications of open heart surgery up to the time of writing (early 1957). The principles behind the application of hypothermia for direct vision intracardiac work are explained in the first part of the book. This is followed by a presentation and discussion of different methods of cooling used throughout the world and it ends with a very good discussion of the advantages, disadvantages, indications and contraindications of cooling.

The second part reviews the whole subject of heart-lung machines with technical details of various machines and different oxygenators. This is further developed, in separate chapters, and with more detail on the DeWall-Lillehei bubble oxygenator and on the Gibbon-Kirklin pump. The limitations of each type are presented and the personal experiments of the authors with the bubble oxygenator are reviewed. At the end of this part, clinical experience with their first 18 cases is presented and discussed, and there follows a very honest evaluation of the present indications for and limitations of this new method of surgery, with closing thoughts on its probable future.

All in all, this is an excellently written and well-presented over-all picture of the subject; an orderly and accurately documented synthesis of a difficult theme.

PHYSIOPATHOLOGY OF THE RETICULO-ENDOTHELIAL SYSTEM. A symposium organized by the Council for International Organizations of Medical Sciences (UNESCO and WHO). Edited by B. Benacerraf, Hôpital Broussais, Paris, and J. F. Delafresnaye, C.I.O.M.S., Paris, France. 317 pp. Illust. Charles C Thomas, Springfield, Ill.; The Ryerson Press, Toronto, 1957. \$10.75.

This book is a record of 17 papers given by representatives from France, Germany, England, Switzerland and the United States at a meeting held in the 18th century mansion at Gif-sur-Yvette. The first interesting thing to record is that the meeting was in part sponsored by the Unitarian Service Committee. In case anyone should wonder why Unitarians are so interested in the reticulo-endothelial system, the explanation is that they are not. Their part is explained in the foreword, part of which we quote because it has a bearing on this book and on many of such symposia which are becoming a feature of modern medicine.

"The Unitarian Service Committee is a non-sectarian organization dedicated to better understanding between peoples and to realizing the highest ideals of the dignity of man. Because medicine is such a powerful force for the well-being of mankind, and because medical scientists are always ready to share their knowledge and skills, medical symposia and exchange of medical research workers have become the cornerstone of the organization's program."

This seems to bear the implication that if one desires a friendly international get-together, medical scientists are the only people that can be trusted not to quarrel!

With the exception of a few reports of scientific experiments which might have been published anywhere, the papers are of a genre for which there is no other vehicle than this type of publication. They are given by men who have been working on one or other aspect of the reticulo-endothelial system for a long time and who have sufficient confidence and knowledge to tell us what they think has been already proved and what remains to be proved. (No one can match the dramatic way in which the Policard builds up to a climactic acknowledgment of ignorance.) All this makes excellent reading.

The discussions at the end of each chapter necessarily suffer from the ever-present compulsion to be friendly but though the whiff of grapeshot is absent there is also no odour of corruption.

A SYSTEM OF OPHTHALMIC ILLUSTRATION. Peter Hansell, Director of the Departments of Photography and Illustration, Institute of Ophthalmology and Westminster Medical School, University of London. 114 pp. Illust. Charles C Thomas, Springfield, Ill.; The Ryerson Press, Toronto, 1957. \$6.25.

This book largely deals with ophthalmic photography, only briefly mentioning the ophthalmic artist. The handling of the patient, the equipment which is needed and the solution of the many problems which arise are discussed and illustrated.

Ophthalmic illustrators have made great advances in recent years but until now these have not been brought together. There has been a need for such a book and this one will be of great value to those interested in the subject.

DIE BOSARTIGEN GESCHWULSTE DES DICKDARMS UND MASTDARMS (Malignant Tumours of the Colon and Rectum). Nicolai Guleke, Wiesbaden. 359 pp. illust. Ferdinand Enke Verlag, Stuttgart, W. Germany, 1957. D.M. 93.

Professor Guleke is a well-known abdominal surgeon in Germany, and this monograph represents his own views together with an extensive review of the literature on malignancy of the colon and rectum. It is No. 66 in a series of monographs on surgical topics put out under the general heading of "New German Surgery". The monograph covers anatomy and physiology, pathology, clinical features of carcinoma of the colon and rectum, differential diagnosis and operative treatment. A large part of the book is devoted to a discussion of various types of operative treatment in use. The prognosis, results of treatment and complications after operation are also dealt with. Finally there are sections on the treatment of inoperable carcinoma of the rectum and on sarcoma of the colon and rectum.

The author stresses that in spite of the enormous advances made in this field in the last decade or so, there is still little reason to be satisfied with the results of surgery for this type of carcinoma. Surgical technique can scarcely hope for a significant improvement, and the main problem consists in making practical and theoretical advances available to the greatest possible number of persons, hence the inclusion in this volume of a section on suggestions for improvement of the early diagnosis of intestinal carcinoma. This is a well-written and well-illustrated book by a senior surgeon concerned not to let surgery degenerate into a matter of pure technique but to retain it as an art in the hands of artists.

AN ATLAS OF HUMAN HISTOLOGY. Mariano S. H. Di Fiore, Associate Professor of Histology and Embryology, Faculty of Medical Sciences, University of Buenos Aires. 215 pp. Illust. Lea & Febiger, Philadelphia; The Macmillan Company of Canada Limited, Toronto, 1957. \$7.50.

This book is primarily intended to be used as a supplement to standard histological textbooks by medical students studying histology for the first time and with a minimum of laboratory instruction. In addition, it would be helpful to postgraduate students reviewing histology and to practising physicians wanting to check the normal microscopical appearance of a tissue in connection with pathological studies. The book consists of 99 coloured plates made up of 156 drawings dealing with the morphological features of cells, tissues (epithelial, connective, muscle, nervous) and organs (vascular, digestive, skeletal, respiratory, urogenital, endocrine, nervous systems). The illustrations are composite drawings based on what could be seen only after studying a number of sections and, therefore, clearly and concisely summarize the important histological features of a given tissue. The author is Associate Professor of Histology at the University of Buenos Aires. Consequently there are differences in terminology and in the stains used. These possible disadvantages are offset by the remarkable clarity of some of the drawings and the generally good balance between the important and the less significant details presented. There are a few typographical errors. It is regrettable that the colour printing is not of more uniform quality.

(Continued on page 822)

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(Continued from page 820)

PREVENTIVE MEDICINE AND PUBLIC HEALTH: An Introduction for Students and Practitioners. Fred Grundy, of the Inner Temple, Barrister-at-Law, Mansel Talbot Professor of Preventive Medicine in the University of Wales. 309 pp. Illust. 3rd ed. H. K. Lewis & Co. Ltd., London, 1957. 25s.

This highly readable book is not a re-hash on hygiene and public sanitation. Dr. Grundy purposely avoids these aspects to a large degree and herein lies the merit of his book. There are excellent chapters on heredity and health, environment and health, the historical background of public health and social welfare, and the World Health Organization which are particularly instructive.

Nearly all chapters have an introductory quotation that is pertinent and frequently highly amusing. There are informative sections in the appendix on "illegitimacy and adoption" and "mental deficiency" and good suggestions for further reading are given.

The chief drawback for the Canadian student and physician is the first section of one hundred pages dealing with organization and government of public health and welfare in Great Britain. Nevertheless, this is an informative book with a refreshing and up-to-date approach to its subject.

PERCEPTANALYSIS: A Fundamentally Reworked, Expanded, and Systematized Rorschach Method. Zygmunt A. Piotrowski, Research Psychologist, New Jersey, and Adjunct Professor of Psychology, New York University. 505 pp. Illust. Brett-Macmillan Ltd., Toronto, 1957. \$6.75.

This comprehensive textbook of a "fundamentally reworked, expanded and systematized Rorschach method" deserves serious attention, since it is the outcome of a lifetime's work by one of the outstanding pioneers in this field of personality appraisal. The author has done much to advance the Rorschach method in teaching and research. One of his earlier contributions, an internationally used list of signs of C.N.S. disorder, is one of the most reliable psychodiagnostic indices in this field.

In this manual, Piotrowski puts commendable emphasis on *formal* aspects of the method. "Perceptanalysis" is a name selected in order to counteract the one-sided and misleading term "projective technique" and to re-emphasize the Rorschach method's potential both as a subject of study and as an aid to objective scientific research. Sharing the view of most serious Rorschach workers, Piotrowski takes a strong stand against wild "content analysts" who, because their work has been mistakenly equated with the Rorschach method, have managed to almost totally discredit the test in many scientifically minded circles. "As a rule, the less skill one has in . . . formal analysis of Rorschach records, the more one is apt to emphasize *content* analysis".* However—as the author says—in this area "words of caution do not appear to deter anyone including those who sound the warning". This statement unfortunately also applies to Piotrowski's

book itself, and occasional spurts of phantasy with little, mostly anecdotal evidence weaken the practical interpretation of the author's theoretical position.

The chapters on the formal, conservative part of the system, which make up three-quarters of the book, are undoubtedly on a much higher level. The rules of administration and scoring are clearly defined, and so are the meanings of the recommended symptomatic values. This part is not only mature Rorschach at its best, but also one of the most far-reaching, yet most careful attempts this reviewer has ever seen at theoretical reformulation of the Rorschach test along the original lines of its founder. By a fruitful combination of "formal" and "content" aspects, Piotrowski has extended and systematized the symptomatic values of the major determinants. At the same time he has been able to use a basic language that is free of the "slang" of any personality theory, and so helps towards the creation of a personality theory that will be unique to the Rorschach and applicable to any other psychological field.

Most weaknesses of the book are so general in modern Rorschach literature that the author cannot really be blamed for them. The great wealth of theory is supported by little experimental evidence. Also, the author develops a system that has many features to commend it, but he adds yet another system to a field in which there are already too many "schools" that differ so greatly that research results from one school cannot be compared with those of another. This unfortunate situation arose after Rorschach died, leaving an incomplete test, and different workers attempted in different ways to perfect it, with the result that they diverged more and more.

Piotrowski, obviously influenced by several American and European systems, tries to take up a middle position between them, the practical result being a new school. For instance, "human movement responses" (M) are extremely important for interpretation and prediction. However, the same subject's protocol might contain 1 M if scored by continental Rorschach standards, 2-3 M if scored by Piotrowski, and 5 M if scored by Klopfer (whose system is most frequently used on this continent). What use can a clinician in one school make of research findings of another school that reports the average number of M responses in a certain diagnostic group to be 2 and any number beyond 3 as counterindicative of this diagnosis? Similarly, Piotrowski's rules for scoring and interpretation of "shading responses" might be an excellent contribution to the Rorschach (one would have to re-score all one's previously collected protocols and compare them with the case histories to find out). They also have the advantage of simplicity and theoretical clarity over Klopfer's system; however, they add up to at least the fifth completely different system in major use on this continent alone.

The reader will want to know whether he should add this book (in which the positive aspects still strongly outweigh the few negative ones) to his library. The answer depends on the degree of his interest and his familiarity with the Rorschach test. It is an extremely stimulating and thorough book on the subject and thus essential for the expert and the fairly advanced. It also could be one of the best to create interest in the beginner.

*Those who accept uncritically the 2-4 month Rorschach training courses and workshops that are so popular on this continent, might be interested to know that, in accordance with the International Rorschach Association's view, Piotrowski feels that "at least two years of closely controlled, supervised training are indispensable for mastery of the technique".

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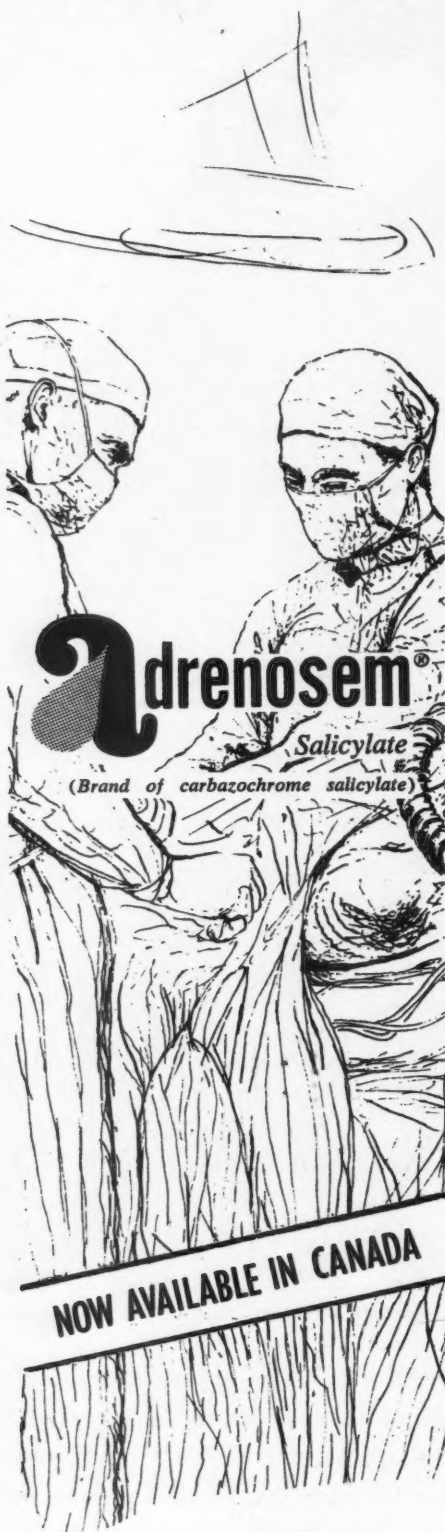
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MEDICAL NEWS in Brief

(Continued from page 790)

A REGIMEN FOR ACNE

To ensure the co-operation of the young patient with acne, the regimen prescribed for him should be relatively simple. Baird of Memphis, Tennessee, (*J. Pediat.*, 52: 152, 1958) describes the regimen which he has found effective as a routine in 371 cases of acne vulgaris, of which 133 were classified as severe and 238 as moderate. Baird feels that it is useless to prescribe severe dietary restrictions. He gives a vitamin supplement (especially vitamin A) if he thinks that the vitamin intake is deficient. He tells the patient to avoid excess carbohydrates (with emphasis on candy and carbonated beverages — especially cola drinks) chocolate, nuts, peanut butter, pork and fried foods. Milk and milk products should be curtailed; lean meat, fruit and vegetables should be taken abundantly.

For local treatment, he finds that the sole use of a new lathering cream (Fostex) for therapeutic washing of the skin, instead of using soap, is quite an effective substitute for the formerly employed local medications. This cream contains surface active wetting and cleansing agents, together with 2% salicylic acid, 2% sulphur and 1% hexachlorophene. The patient washes his face twice a day with the cream, massaging the lather into his skin for five minutes and then rinsing it off thoroughly. He also uses the same cream as a therapeutic shampoo.

The usual acne surgery is performed as required (expression of comedones, opening of abscesses). In severe cases doses of x-ray may be needed, or short courses of oral antibiotics for acute infection, or oestrogens or staphylococcus vaccine. Chapping of the skin after the treatment is managed by stopping the cream for two or three days and resuming with less vigorous massage.

DOCTOR, IS THIS T. & A. REALLY NECESSARY?

In a recent survey of this topic Dr. Harry Bakwin of New York has brought out illuminating facts on this question (*J. Pediat.*, 52: 339,

(Continued on page 46)

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ADVANCED GRADUATE COURSES

The Faculty of Medicine of the University of Toronto offers advanced graduate courses in Medicine, Surgery and Obstetrics and Gynaecology, to be held over a six weeks' period, from August 18th to September 26th, 1958.

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The fee will be \$225.00 (Canadian Funds), payable in advance to the Chief Accountant, University of Toronto.

Further information may be secured from the Division of Postgraduate Medical Education, Faculty of Medicine, University of Toronto, to which applications for admission should be made before June 15th, 1958.



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MEDICAL NEWS in brief

(Continued from page 45)

1958). Quoting from a good number of references he has come to the conclusion that operations for tonsillectomy and adenoidectomy are probably performed as frequently now as in former years. This frequency has been maintained in spite of adequate studies which tend to prove that in a considerable number of instances the operation may not only be unnecessary but may cause definite harm to the patient. Drawing on a study made in Australia, he mentions that a group of approximately 700 children had been recommended for T. & A. by experienced members of the visiting staff of the Sydenham Children's Hospital but had not been operated on because of a poliomyelitis epidemic. On re-examination 18 months or more later, it was concluded that operation was unnecessary in 37% of those who had been slated for it. Why then are tonsils and adenoids removed at that rate? A survey questionnaire of 3441 physicians with practice confined principally to the care of children produced a list of indications ranging

from recurrent or chronic otitis media, prominent mouth breathing or snoring due to large tonsils or adenoids, to "tendency" towards rheumatic fever, and routine procedure. In actual practice, says the author, the overwhelming majority of children are operated upon for one or more of the three following reasons: parental pressure for the operation, large tonsils or adenoids, and frequent respiratory infections. He then proceeds to prove that the operation in most instances does not accomplish what these indications purpose to achieve. The laity is still under the impression that removal of tonsils and adenoids is a desirable health measure. This impression is supported not only by a part of the medical profession but also by the lay press and the publicity from health insurance companies. It may partly explain the considerable regional variation in different practices. For instance, in Great Britain ten times more tonsillectomies and adenoidectomies are practised in Leeds per capita than in Sheffield. For other contiguous or at least closely related regions, the differential factor is up to 19 or even 27 times. As far as the size and appearance of the tonsils are concerned, there is little if any correlation between that, the degree of infectivity involved and the morbidity which may result. In the words of Epstein, "the physician does not know an infected tonsil when he sees one". For those who claim that this operation is an entirely harmless procedure, the author lists a number of hazards over and above those which are attached to any surgical intervention involving anaesthesia and the possibility of haemorrhaging; there is the risk of poliomyelitis, which now seems reasonably well proven; that of septicæmia and the psychologic trauma inflicted on young children on their first separation from home as well as their first admission to hospital. This survey is well documented and could profitably be read in conjunction with the article by leRiche and Stiver published in this Journal on July 15, 1957.

HYDROGEN PEROXIDE AND TUMOUR THERAPY

Last year Holman (*Nature*, 179: 1033, 1957) suggested that the use of hydrogen peroxide as a substitute for drinking water in animals

carrying experimental tumours had a therapeutic effect upon the tumours. A therapeutic effect has also been claimed from intratumoral injection. Unfortunately, recent studies by Green and Westrop from Sheffield, England, (*Nature*, 181: 128, January 11, 1958) have failed to confirm these findings. They implanted 10 rats with Walker tumour and then replaced the drinking water by 0.45% hydrogen peroxide. All the rats died at the same time as did 10 control rats with tumours of the same weight. The same result was obtained with a transplantable sarcoma. Other experiments in which spontaneous and transplanted tumours were injected intratumorally with various concentrations of commercial hydrogen peroxide at intervals were all essentially negative. Green and Westrop suggest that the "cures" obtained by Holman may have been natural tumour regressions.

THE SIMULATION OF DEAFNESS

The Beltone Institute for Hearing Research has recently released No. 8 in its series of *Translations* of key
(Continued on page 50)

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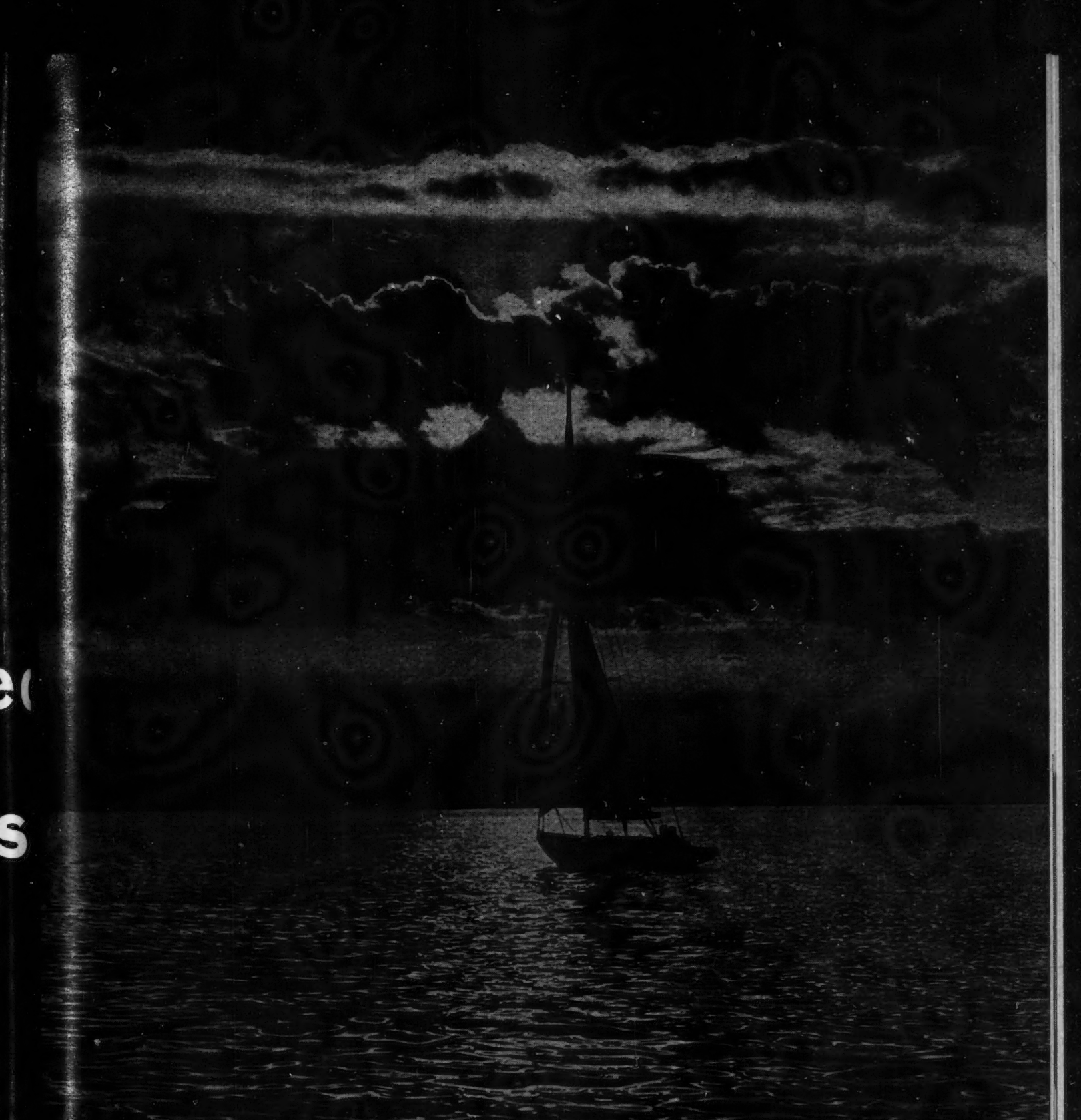
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MEDICAL NEWS in brief*(Continued from page 46)*

articles or monographs on matters connected with hearing. The most recent one is entitled "The Detection of Auditory Malingering" by Dr. J. E. Fournier and is a translation of his article in French which appeared in 1956 in *Exposés annuels d'oto-rhino-laryngologie*, 1956 (Masson & Cie, Paris). Fournier discusses the methods at the disposal of the otologist for the detection of malingering, and comes to the conclusion that "if one excepts the question of psychogenic deafness, which it is not possible to differentiate from simulated deafness by means of any functional test, the detection of malingering is a problem that has now been solved." Interested physicians may obtain copies of this monograph from the Beltone Institute for Hearing Research, 2900 West 36th Street, Chicago, Illinois.

WHAT HAPPENS TO DRUG SAMPLES?

The Advertising Department of the American Medical Association is sponsoring a study of the part that drug samples play in medical practice. The actual research program will be conducted by a medical marketing research firm, and the program is designed to provide facts on the uses to which drug samples are being put by practising physicians. Information on the disposal of samples will be studied in relation to the kinds of patients seen by the physician and the conditions he treats, the types of drugs he uses and other aspects of his practice. The study will be nationwide in the U.S.A. and will continue through spring and summer. The A.M.A. will make the results of the study available to the pharmaceutical industry in a series of detailed reports designed to provide practical guidance in the use of samples as a marketing technique.

POSTGRADUATE COURSES FOR OPHTHALMOLOGISTS

The Institute of Ophthalmology of the Americas of the New York Eye and Ear Infirmary announces a series of postgraduate courses for specialists to be given from November 3, 1958, to January 9, 1959.

Courses will be given in the following subjects: Anomalies of

Extraocular Muscles, including Ptosis; Anisoikonia; Biomicroscopy; Cataracts; Clinical Bacteriology; Complications of Ophthalmic Surgery; Electrophysiology of the Eye; Glaucoma; Gonioscopy and Tonography; Keratectomy and Keratoplasty; Lacrimal Sac Surgery; Medical Ophthalmoscopy; Near Ultra-Violet Biomicroscopy; Ocular Allergy; Ocular Biochemistry; Ocular Microbiology; Ocular Neuro-Ophthalmology; Ocular Photography; Ocular Radiology; Ocular Trauma;

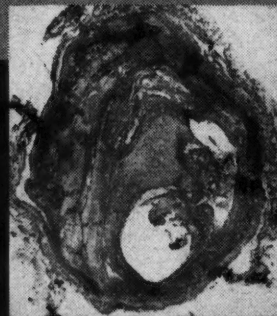
Ophthalmoscopy; Pathology; Perimetry; Plastic Eye Surgery; Pleoptics and Macular Function Testing; Psychosomatic Factors in Ophthalmology; Radio-Isotopes in Ophthalmology; Refraction; and Retinal Detachment.

Further information from: Mrs. Tamar Weber, Registrar, Institute of Ophthalmology of the Americas of the New York Eye and Ear Infirmary, 218 Second Avenue, New York 3, N.Y.

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ALCOHOL IN SWEDEN

Greater freedom but greater responsibility, together with a positive approach to alcohol problems, is the guiding principle of Sweden's liquor law reform starting in 1955, Daniel Wiklund, Chief Inspector, Royal Swedish Welfare Board, told a group of alcohol research and education specialists in Toronto recently. Mr. Wiklund was visiting the Ontario Alcoholism Research Foundation during his study of a number of North American pro-

grams and institutions concerned with alcohol problems. The recent liberalization of Swedish policy regarding sale of alcoholic beverages has, he explained, been coupled with intensified work on preventive education and on the control and treatment, including compulsory treatment, of those who misuse alcohol. Annual Swedish State expenditures for these purposes are now about \$8,000,000, close to \$1 per capita.

State funds in the field are now

administered largely by some 1100 municipal agencies for the prevention of alcoholism and treatment of alcoholics (PATA), each run by a committee elected by local authorities. Such PATA committees have by law the power and duty to investigate and act on all cases of convictions for drunkenness, for crimes or driving offences involving alcohol, or on any other evidence of abuse of alcoholic beverages. About 80,000 cases a year are dealt with, 46,000 being directed towards some kind of treatment—16,000 of these on a compulsory basis.

Compulsory supervision (or in extreme cases institutionalization) is used extensively in Sweden for persons considered dangerous to others, neglectful of dependents, a burden to the community, or with at least three alcohol-related convictions in a two-year period.

Beginning October 1, 1955, when freer sale of alcoholic products was introduced after 36 years of strict rationing, there was an initial increase in all alcohol problems, but more recently they have begun to decrease. During the first year after the reform alcoholic beverage consumption increased by up to 35%. The decreasing tendency which set in one year later was accelerated by a sharp increase in taxation, particularly on spirits, directed to encouraging the Swedish people to shift from spirits to wines and beer. The initial increase in drunkenness after the reforms seemed largely among long-standing alcoholics.

Under Swedish legislation the element of private profit on alcoholic beverages has been eliminated as completely as possible, partly through state monopolies of wines and spirits and strong beers, and through insistence on serving meals with drinks ordered in restaurants. The advertising of alcoholic beverages is permitted in Sweden, but is under the guidance of an Advertising Advisory Council which includes representatives of the Advertisers Association.

It is recognized in Sweden that alcohol is a major social problem needing a long-term approach. No single measure can deal with the situation, which presents a very complex problem requiring complex treatment, including medical, psychological and social welfare approaches together with widespread education, special controls

(Continued on page 52)

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SANDOZ

MEDICAL NEWS in brief

(Continued from page 51)

in such subjects as the driving of automobiles, and increased attention to research.

Basic research in the field is being developed by a high-level national committee. The Ontario Alcoholism Research Foundation is being used as a model in the formation of the new institute for alcoholic research and treatment at Karolinska University. The world-famous alcohol research pioneer, Dr. Leonard Goldberg, is Professor of Theoretical Alcoholology at the new institute.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of application is September 1, 1958. No applications can be accepted after that date.

Candidates for admission to the examinations are required to submit with their application an unbound 8½ x 11 inch typewritten list of all patients admitted to the hospitals where they practised for the year preceding their application, or the year prior to their request for reopening of their application.

Current bulletins outlining present requirements may be obtained by writing to the Secretary: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

MANAGEMENT OF THE COMPLICATIONS OF ACUTE NEPHRITIS IN CHILDREN

Acute nephritis in children is usually benign and almost every child who survives the acute phase recovers completely. No added benefits were observed by Burke at the Mayo Clinic (*Proc. Staff Meet. Mayo Clin.*, 33: 23, 1958) from prolonged bed rest over four weeks in children with delayed recovery from the acute phase. The two major complications mentioned by him are acute renal failure and hypertension. Oliguria and anuria lead to azotemia and hyper-

(Continued on page 60)

The Canadian Medical Protective Association

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Pranone tablets,
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MEDICAL NEWS in brief

(Continued from page 52)

kalæmia. If hypertension supervenes (estimated to occur in some 50% of children with acute nephritis), hypertensive encephalopathy and heart failure as well as hyperkalæmia may lead to death. Acute

renal failure is treated by careful attention to fluid balance and correction of the electrolyte disturbance. A low-protein diet is prescribed, but as a rule lack of appetite persists until renal function has improved, and dextrose must be the mainstay for the initial

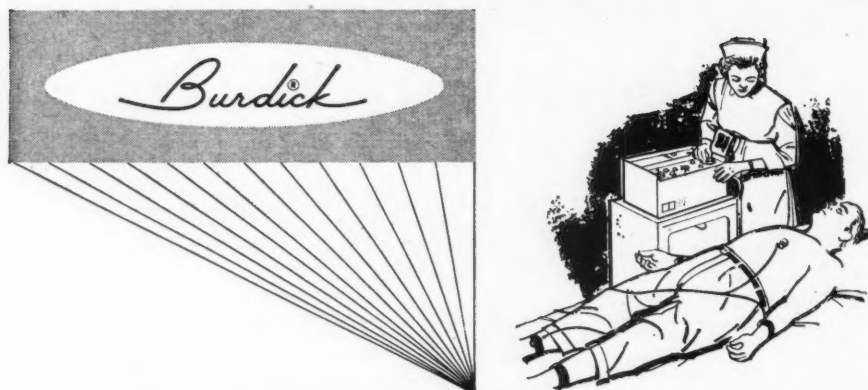
period. Weight control is used as an index of the state of total body water, and the requirements for body water are calculated daily, using a simplified formula as described in Burke's paper. Dextrose (50-75 g. of 10% solution per square metre of body surface) is administered because of its anti-ketogenic, protein-sparing and sodium-sparing effects. It also reduces catabolic activity and renal obligatory water requirements in addition to making some water available to the body when metabolized. Dextrose with hypotonic saline may help to reduce the potassium concentration in the serum. Recently hyperkalæmia has been treated successfully with repeated enemas of carboxylic acid resin in water and methylcellulose liquid. Finally, if there is no improvement in the serum potassium and the electrocardiogram, dialysis with the artificial kidney may be lifesaving. Hypertension has been treated successfully for a number of years with intramuscular injections of 0.2 ml. of 50% magnesium sulfate per kg. body weight. Rise in serum magnesium level and concurrent fall in serum calcium level may result in toxic manifestations. The author quotes McCrory and Macaulay, who have used a combination of hydralazine and reserpine, 0.15 mg. each per kg. body weight, once daily by intramuscular injection. Its hypotensive effect appears within 20 minutes and side effects are said to be rare and inconsequential.

Heart failure is treated along the same lines as heart failure due to any other cause.

PERMANENT HEART DAMAGE FROM DIPHTHERITIC MYOCARDITIS

Although acute myocarditis is one of the commonest complications of diphtheria, and is responsible for between 50 and 60% of the deaths in this disease, perusal of the literature indicates that permanent damage is an infrequent consequence. However, E. G. Sayers reports a case (*Ann. Int. Med.*, 48: 146, 1958) of a New Zealand soldier who suffered from a severe attack of diphtheria in Egypt in 1942. He had severe myocarditis and peripheral neuritis, and two nasal smears were posi-

(Continued on page 62)



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Histol-c

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MEDICAL NEWS in brief

(Continued from page 60)

tive for *Corynebacterium diphtheriae*. An electrocardiogram obtained during the illness demonstrated signs of gross myocardial involvement. After a prolonged illness the patient was rehabilitated and returned to active military service. He participated in a prolonged military campaign, and after his discharge from the army in 1945 the electrocardiogram

was still abnormal, and again so in 1946. The patient's state of health remained good, and he had a good exercise tolerance until 1954 when he presented with an enlarged heart and severe congestive failure. He died in December 1954. The autopsy showed diffuse fibrosis in all regions of both ventricles, with no sign of coronary disease. The author suggests that this was probably the result of the original myocarditis caused by the diphtheria.

POSSIBLE MISTAKES IN THYROIDECTOMY

In a recent issue of the *Medical Journal of Australia* (1: 66, 1958), Alan Pryde, Honorary Consulting Surgeon to the Thyroid Clinic, Launceston, General Hospital, Tasmania, reviews a series of 1000 thyroidectomies which he performed, in the light of the mistakes he made. Proceeding from without inwards, he stresses the importance of a good cosmetic effect in the scar. An ugly scar may not only be a source of worry for the patient but may also contribute to discourage friends and relatives from undergoing the operation even in the face of dire necessity. The author is used to sewing the pre-tracheal muscles and fasciæ with interrupted sutures in order to prevent the skin from becoming attached to the trachea. On two occasions in the series while dissecting the gland he accidentally opened the trachea. Fortunately this was not a severe complication. In order to avoid it, the author recommends less extension of the head and the use of scissors instead of a knife. Horner's syndrome occurred four times at operation in this series, presumably from tying the sympathetic chain by mistake, thinking it was the inferior thyroid artery. As a rule the author now does not tie anything that is not pulsating. In the course of injecting local anæsthetic solutions in the different poles of the gland he penetrated the apex of the lung on two occasions. As a precaution he does not inject the lower pole any longer. Postoperative tetany was observed 14 times in his series. In his experience most cases of tetany occur within 36 hours after operation; he does not consider tying both inferior thyroid arteries as a predisposing factor. Calcium therapy was sufficient to control all of his cases. Postoperative bleeding deep in the wound may be discovered by its three cardinal signs, namely, increasing swelling, tenderness and discomfort. If the wound must be reopened, it is better to do so early rather than wait. When the pyramidal lobe of the thyroid is present and is not removed at operation, the patient may present some months later with a lump high in the midline of his neck. It is therefore essential to remove the whole of this lobe.

(Continued on page 66)



"Doctors can't help shingles?"

Physicians who have used PROTAMIDE extensively deplore such statements as unfortunate when they appear in the lay press. They

have repeatedly observed in their practice quick relief of pain,

even in severe cases, shortened duration of lesions, and greatly lowered incidence of postherpetic neuralgia when

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Crystamycin is bactericidal. Therefore it does not, as the bacteriostatic broad-spectrum antibiotics do, merely inhibit the multiplication of micro-organisms—it stops them dead in their tracks, destroying them swiftly, relentlessly and safely. Therapy with Crystamycin is short and decisive... and low in cost into the bargain.

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Just mix the streptomycin with the penicillin
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MEDICAL NEWS in brief

(Continued from page 62)

Postoperative thyroid crisis happened in six cases. One of these patients died. However, it must be pointed out that this complication took place in three cases before the advent of thiourea. The over-all mortality rate for this series was 0.7%.

THE MANAGEMENT OF SHOCK

Identification of the underlying cause with a view to planning rational treatment is a basic general concept in the handling of a patient

in shock. On the basis of information currently available, the specific causes of shock have been classified into six groups: hypovolaemia, cardiac failure, bacteraemia, hypersensitivity, neurogenic factors, and obstruction to blood flow.

Vasopressor agents are helpful in most instances of shock related to cardiac failure, bacteraemia, and hypersensitivity. They are usually contraindicated in shock due to vascular obstruction and in hypovolaemic shock until optimal replacement of fluid has been achieved. Recent studies have indicated that aramine (metaraminol bitartrate) may be the pressor

amine of choice because it is therapeutically effective, simple to administer, without risk of injury to skin and subcutaneous tissues, and available for injection without additional fluid (thus especially suitable for patients with renal failure).

Rigorous attention to the fluid and electrolyte state is of special importance. In the presence of acidosis, the response to vasopressor agents is greatly diminished. The use of molar solution of sodium lactate to re-establish this responsiveness has met with limited success and seems worthy of trial in selected cases.

Adrenocortical hormones may be of striking benefit in shock due to bacteraemia or hypersensitivity when an overwhelming response to inflammation threatens life. These drugs may be used also to augment the effectiveness of vasopressor drugs. Relatively little risk is involved, provided that the periods of employment are short and that antibiotics are used concurrently. The indications for digitalis glycosides in shock are the same as at other times; their routine use is of no proved benefit and may be injurious. Atropine is of value when excessive vagal activity with bradycardia produces or complicates the hypotensive state.

Chlorpromazine is of no proved worth in the treatment of shock, and possible benefits achieved with anticoagulants are not established as yet. Preliminary observations suggest that hypothermia may be of some value. The head-down position provides only transient benefit in patients with shock, and its prolonged or routine use may delay recovery.—W. R. Scarborough and B. M. Baker, *Circulation*, 16: 1097, 1957.

CURRENT STATUS OF BALLISTOCARDIOGRAPHY

There is a need for some objective method that will detect preclinical coronary artery disease. The hope for successful treatment by dietary, surgical, hormonal, chemical, and other measures makes this need an urgent one. It seems unlikely that an improved method suitable for routine clinical use will come from current research upon electrocardiographic, radiologic, and catheterization techniques. According to a recent review by Tobian and Tuna (*Cir-*

(Continued on page 76)

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1. Proctor, R. C.: Dis. Nerv. Sys. 18:223 1957. 2. Feuss, C. D., and Gragg, L., Jr.: Dis. Nerv. Sys. 18:29, 1957. 3. Coats, E. A., and Gray, R. W.: Dis. Nerv. Sys. 18:191, 1957. Registered Trademark: Quiactin

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MEDICAL NEWS in brief

(Continued from page 66)

culution, 16: 971, 1957), ballistocardiography is the only method now under study sufficiently simple from the patient's point of view that holds out some promise for evaluating over-all circulatory performance. Preliminary observation leads the authors to believe that this can be accomplished by ballistocardiography. The ballistocardiograms of a small group of patients with overt coronary artery disease whose dietary fats were considerably restricted for a year or more improved in form significantly when contrasted with those of a control group allowed to select their diets freely. To the knowledge of the writers, this observation provides the only objective evidence indicating that dietary lipid restriction may improve circulatory function in human beings with coronary atherosclerosis.

This review is an expression of faith in the further development of ballistocardiography. A few years

ago many workers took a strong position that unjustified claims were being made for the clinical value of the method and since then most cardiologists have consistently advised a conservative attitude. Partly because progress in this highly specialized and technically complex field has seemed slow, there has arisen recently some rather harsh criticism of the method that is considered to be unwarranted, especially as it now seems likely that current research will provide, within the near future, a sound physical and physiologic basis for ballistocardiography.

INTER-SOCIETY CYTOLOGY COUNCIL

The Inter-Society Cytology Council will hold its Annual Scientific Meeting at the Hotel Statler, New York, N.Y., November 13-15, 1958. Information from Paul F. Fletcher, M.D., Secretary, 634 North Grand Avenue, St. Louis 3, Missouri.

POSTGRADUATE COURSE IN LARYNGOLOGY AND BRONCHESOPHAGOLOGY

The next postgraduate course in Laryngology and Bronchoesophagology to be given by the University of Illinois College of Medicine is scheduled for the period October 27-November 8, 1958. The course is under the direction of Dr. Paul H. Holinger.

Interested registrants should write directly to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

ENDEMIC GOITRE

In a recent issue of the *Bulletin of the World Health Organization* (18: Nos. 1-2, 1958) there is a symposium on endemic goitre. The first article, a survey of the prevalence and geographical distribution of endemic goitre by Kelly and Snedden, shows that this disorder occurs with varying



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1. The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc. and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

intensity in almost every country; few countries appear to be entirely free from it. In this article, a short survey of the bibliography on goitre in Canada is included. The authors note that there are areas of endemic goitre in all the four western provinces of Canada, but that information on the endemic occurrence of goitre in Ontario and Quebec is less precise, though the area of the Great Lakes has long been recognized as potentially goitrous. Further east there appears to be no goitre problem. Clements of Australia discusses the scope of the health problem of endemic goitre and related conditions, with reference to its sequelæ in children and in adults and in the progeny of goitrous parents. He casts doubt on the suggestion that persons suffering from endemic goitre are more likely to produce cretins, deaf-mutes and mental defectives than persons living in a goitre-free locality. There is need for further research into the problem of endemic cretinism. Stanbury of Har-

vard Medical School discusses iodine metabolism and the physiological aspects of endemic goitre. Other articles in the symposium include one on the classification of goitre and the technique of endemic goitre surveys, one on the therapy and prophylaxis of endemic goitre, and one on iodized salt.

RETURN TO LATIN

The *Journal of Medical Education* concludes each of its articles with a summary in Interlingua for the benefit of such readers as do not read English. In the March 1958 issue, a correspondent queries the value of this practice. He feels that Interlingua should be replaced by Latin on the grounds that many physicians speaking Germanic or Slavic languages or Japanese or Chinese would probably know some Latin, but would know no Interlingua. He claims that a poll of a few of his associates disclosed the fact that none of them could read Interlingua,


but that several thought that they would find it easier to brush up their Latin than to learn the new language.

He might of course have made the additional point that it would be far more profitable culturally to have a reasonable reading knowledge of Latin than of Interlingua, for the former gives the reader access to a wealth of delightful literature, while the latter suffers from the common defect of all artificial languages that it possesses no intrinsic literature worth reading for its own sake.

FATE OF TRANSFUSED MARROW CELLS

Scientists of the National Cancer Institute have found that bone marrow injected into mice to protect them from lethal doses of radiation survives for many months and sometimes develops into cancer. These findings were reported by Miss Delta E. Uphoff and Dr. Lloyd W. Law, of the Laboratory

(Continued on page 78)



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MEDICAL NEWS in brief*(Continued from page 77)*

of Biology, National Cancer Institute, Public Health Service, Department of Health, Education, and Welfare, Bethesda, Maryland. At a meeting of the American Association for Cancer Research, in Philadelphia, Pa., on April 11, they read a paper on the development of malignant lymphomas after the administration of radiation and bone marrow. This study is an outgrowth of observations reported several years ago by National Cancer Institute investigators, who found that mice exposed to lethal doses of total-body radiation (about 900 roentgens) recovered from the effects of acute radiation injury when given an intravenous injection of bone marrow. Later studies showed that if the irradiated mice receive isologous bone marrow (marrow from the same strain of mice), they survive 1 to 2 years, a somewhat shorter than normal lifespan. If homologous marrow (marrow from a different strain) is given, mice survive the

stage of acute radiation damage, but many die in 21 to 90 days.

In the present study, the investigators observed that mice surviving more than 90 days after receiving radiation and homologous bone marrow may develop tumours. They undertook to find out whether the malignant lymphomas originated from the cells of the host animal or the bone marrow injection. Many of the mice receiving homologous marrow showed a variety of reactions, such as loss of weight, diarrhoea, and, occasionally, dermatitis. Of the mice showing a severe reaction, only a small number survived 90 days; of those showing mild or no reaction, all survived over 90 days. Many of the lymphomas that developed in the surviving mice were tested by transplantation of bits of tumour into animals of host or donor strain. This test was based on the same principle as that used in skin grafting (a "take" occurs when an individual receives a graft of his own skin or that of an identical twin, but not when he receives a graft from another individual).

In the transplantation of tumours, those that grew progressively and killed the animal were considered to be of the same strain as the animal. It was found that most of the tumours were of donor origin and only a few were of host origin. The results show that the homologous bone marrow cells did not die, but survived in the irradiated host for as long as 18 months, and some developed into malignant tumours.

PROTECTION AGAINST SIDE EFFECTS OF NITROGEN MUSTARD

Tumour-bearing mice pretreated with aminoethylisothiuronium bromide hydrobromide (AET) were completely protected against a dose of nitrogen mustard that would ordinarily kill 50% of the animals. In no case was the anticancer effect of nitrogen mustard suppressed by AET. These findings were reported by Drs. Margaret G. Kelly, David P. Rall, and Charles G. Zubrod, all of the General Medicine Branch, and Dr.



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Roger W. O'Gara, Laboratory of Pathology, National Cancer Institute, Public Health Service, Bethesda, Maryland. The investigation stemmed from reports from the Oak Ridge National Laboratory of the Atomic Energy Commission that AET was effective in protecting mice and monkeys against the lethal effects of radiation. These observations suggested the possibility that AET might protect against the toxic effects of alkylating agents, such as nitrogen mustard which is a radiomimetic drug.

The tests were made on mice that had a variety of transplanted tumours, including leukaemia, lymphoma, sarcoma, and lymphosarcoma. Injection of AET alone produced no demonstrable effect on any of the tumours, but pretreatment with AET permitted the use of higher doses of nitrogen mustard. The mean survival time of mice bearing implants of leukaemia (L1210) and sarcoma (reticulum-cell sarcoma No. 6867) was always longer in animals pretreated with AET than in mice

given high-dose levels of nitrogen mustard only, and was increased 20 to 50% over that of untreated controls. In mice bearing subcutaneous implants of either of these two tumours, nitrogen mustard delayed infiltration of the liver with tumour cells. This action of the drug was also not inhibited by pretreatment with AET. Histopathologic studies on mice pretreated with AET indicated that it decreased but did not entirely prevent the toxic effects of nitrogen mustard in bone marrow and intestine of normal and tumour-bearing mice.

AET showed a weak protective effect against the toxicity of thio-TEPA, but none against other radiomimetic drugs, such as Myleran, colchicine, and trimethyl colchicine acid.

AMERICAN PUBLIC HEALTH ASSOCIATION

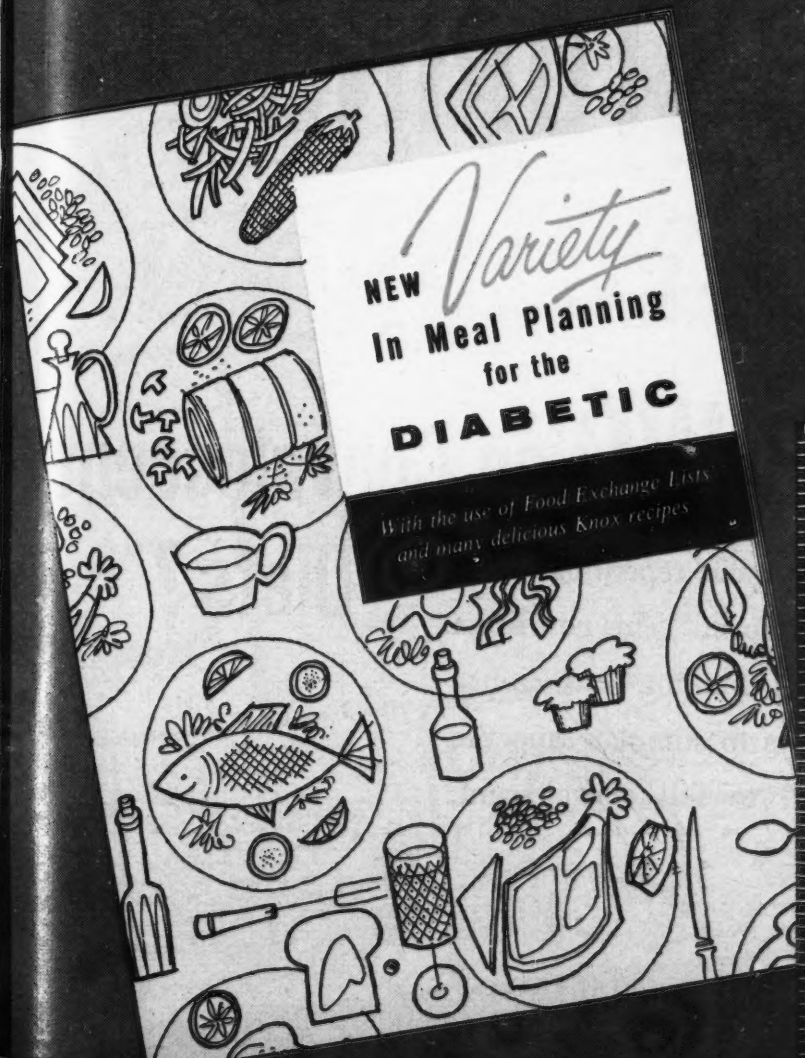
The American Public Health Association will hold its 86th annual meeting in St. Louis, Mo., October 27-31.

Preliminary plans include meetings of 14 specialized sections: dental health, engineering and sanitation, epidemiology, food and nutrition, health officers, laboratory, maternal and child health, medical care, mental health, occupational health, public health education, public health nursing, school health and statistics.

Among topics to be covered in scientific sessions are the epidemiology of ionizing radiation injury, problems of meeting world food needs, original research in mental health, a reappraisal of health education in the space age, and public health aspects of non-living environmental contaminants, including radiation, atmospheric pollution and noise.

Other topics will include alcoholism, public health practices in mental hospitals, epidemiology of pregnancy wastage, recent developments in prepayment for health services, and medical care for the aged and disabled.

The older public health problems will continue to require attention.
(Continued on page 80)



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MEDICAL NEWS in brief*(Continued from page 79)*

tion, and the program will therefore include such subjects as community health services for children, rehabilitation for children and adults, accident prevention, public health aspects of housing, occupational health problems and epidemiology of a wide variety of diseases including influenza, virus diseases, malignant tumours in children, diseases of the teeth and gums and cardiac diseases. Further information is available from the American Public Health Association, 1790 Broadway, New York 19, N.Y.

GERMAN ORTHOPÆDIC SOCIETY

The German Orthopædic Society (Deutsche Orthopädische Gesellschaft) announces that it will hold its 46th Congress from September 9-12, 1958, in Tübingen, at which the following will be the main subjects for discussion: problems of aging, vertebral changes due to aging and to proliferation, the

significance of synovial tissue for joint function, risks and errors in open fracture operations, Sudeck's syndrome, and the utilization and risks of orthopædic apparatus. Interested German-speaking physicians may obtain further information from Professor Lothar Kreuz, Tübingen, Calwer Strasse 7, West Germany.

SHOE-FITTING FLUOROSCOPES

At the American Conference of Government Industrial Hygienists in Atlantic City on April 21, Dr. Jan Lieben said that Pennsylvania was the first state to outlaw the use of shoe-fitting fluoroscopes. Since Pennsylvania took this action in February 1957, he said, Vermont, Texas, New York, South Dakota, and Montana have outlawed shoe-fitting fluoroscopes. Six more states that have no regulations and five states that have regulations are now considering the outlawing of shoe-fitting fluoroscopes of which there are 5000 in 37 states.

The ban was very well received, Dr. Lieben indicated. The Philadelphia Shoe Retailers' Association went on record stating that these devices served no useful purpose and that a good shoe salesman can fit shoes just as well, if not better, without the fluoroscope.

Dr. Lieben cited two cases of persons injured by these machines. He cautioned that cases of radiation damage are slow to appear and that more cases can be expected within the next few years.

The ban on these machines is one phase of the comprehensive radiation program developed in the Pennsylvania Department of Health following the adoption of a radiation regulation in November 1956. The development of this broad radiation program, he said, was given impetus by the location of the first commercial power reactor in Pennsylvania.

SYMPATHECTOMY FOR RAYNAUD'S PHENOMENON

Sympathectomy for Raynaud's disease affecting the upper ex-



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limbs gave good or excellent results in 37 of 68 women (54%) in a series reported by Gifford (*Circulation*, 17: 5, 1958). Good or excellent results were obtained more frequently if postoperative complications were not present. There was no significant difference between the results obtained by preganglionic and postganglionic sympathectomies. Two of the 68 patients (3%) lost portions of fingers after sympathectomy. Of the patients who had a fair or poor long-term result, the majority initially obtained a good result and then had relapses during the first two years after sympathectomy.

Sympathectomy for the lower limbs gave good or excellent results for 17 of 18 women with Raynaud's disease (94%). Sympathectomy for Raynaud's phenomenon secondary to other diseases gave poor results in the upper limbs in 72% of cases and only slightly better results in the lower limbs.

Sympathectomy should be reserved for patients with the more

severe and progressive Raynaud's disease, since prognosis is good without sympathectomy when the disease is mild or moderately severe, and not progressing.

THE STRUGGLE FOR ERADICATION OF TUBERCULOSIS

Willner (*Dis. Chest*, 33: 173, 1958) insists that tuberculosis is far from being controlled in spite of education, research and modern medical and surgical therapy. Mass radiological surveys will not lead to eradication but may help to diminish the incidence. The tuberculin test should be widely used not only in children but also in controlled groups of adults (school teachers, municipal employees, domestics, food handlers) to locate positive reactors, who must be closely supervised. Every open active case must be isolated and treated and all contacts closely followed up by routine radiographs. Proper isolation of the known patients will prevent the infection from spreading and thus

limit the "pool of communicable disease". The major problem consists of the surviving tuberculous individual with unhealed disease which flares into activity. Eradication must depend upon the absence of infection and early diagnosis with rapid treatment to prevent further spread.

BLOOD PRESSURE IN WHITE PEOPLE OVER 65 YEARS OF AGE

The establishment of blood pressure limits in old age has now become important, since the number of persons over 65 years is already so large and is steadily increasing. Answers to many questions concerning the relationship between the blood pressure reading and its possible clinical significance must be found. A report by Master (*Ann. Int. Med.*, 2: 284, 1958) presents the results of the first valid study of the blood pressure of an adequate number (5757) of apparently "healthy" white men and women 65 years of

(Continued on page 84)



The image shows the cover of a brochure titled "Meal Planning for the SICK and CONVALESCENT with menus and recipes". The cover is decorated with illustrations of various foods: a cornucopia of vegetables (broccoli, carrots, tomatoes) at the top left, a bowl of fruit (apples, oranges) at the top right, a bowl of soup or salad at the bottom left, and a whole fish at the bottom right. The title "Meal Planning" is in a large, stylized script font, and "for the SICK and CONVALESCENT" is in a bold, sans-serif font. Below this, it says "with menus and recipes". At the very bottom, it reads "KNOX GELATINE COMPANY, JOHNSTOWN, N. Y."

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Pyridoxine (B ₆)	1 mg.	Iodine (KI)	0.01 mg.
Niacinamide	10 mg.	Potassium (K ₂ SO ₄)	0.835 mg.
Riboflavin (B ₂)	2 mg.	Manganese (MnO ₂)	0.07 mg.
Vitamin B ₁₂	2 mcgm.	Magnesium (MgO)	0.15 mg.
Ascorbic Acid (C)	50 mg.	Molybdenum	
Vitamin K (Menadione)	0.5 mg.	(Na ₂ MoO ₄ · 2H ₂ O)	0.025 mg.
Folic Acid	1 mg.	Zinc (ZnO)	0.085 mg.
Iron (as Fumarate)	30 mg.	Calcium (as Carbonate)	230 mg.

in the picture . . . during pregnancy

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MEDICAL NEWS in brief

(Continued from page 81)

age and older in the United States. The frequency distribution curves of the blood pressure show that the factor of lability of pressure was not a source of error in this large group. When the number of subjects is large enough, and when the blood pressure is taken with reasonable care, the lability of the arterial pressure hardly influences the results.

Two ranges of blood pressure are computed for each sex between the 65th and 106th year. The middle 80% range in males is 115-175/70-95, mm. Hg and in females is 120-192/65-102. In general, if blood pressures fall within these limits and are not associated with evidence of hypertensive heart disease, antihypertensive drug therapy is not indicated. The middle 95% range in males is 100-212/55-112. A blood pressure reading beyond these figures is practically always abnormal. The ranges suggested should be used only as clinical guides. The final evaluation of each blood pressure

reading depends on the entire clinical picture. This is particularly true for blood pressures falling near or beyond the upper limit of the middle 80% range.

RADIOLOGICAL HEALTH DIVISION FOR U.S. PUBLIC HEALTH SERVICE

A new Division of Radiological Health has been created in the U.S. Public Health Service, to provide technical assistance to state agencies in dealing with medical, industrial and other activities involving public exposure to radiation. The division will also conduct research and training programs.

The growing importance of radiation in the health field is reflected by the fact that, just ten years ago, the Service's radiation unit consisted of one physician and a secretary. Today, 51 persons are involved in various aspects of radiation work. Under the new division, it is expected the program will expand to include a staff of 76 persons, with a budget

of over \$600,000, in the fiscal year 1959. Chief of the new division will be Dr. Francis J. Weber.

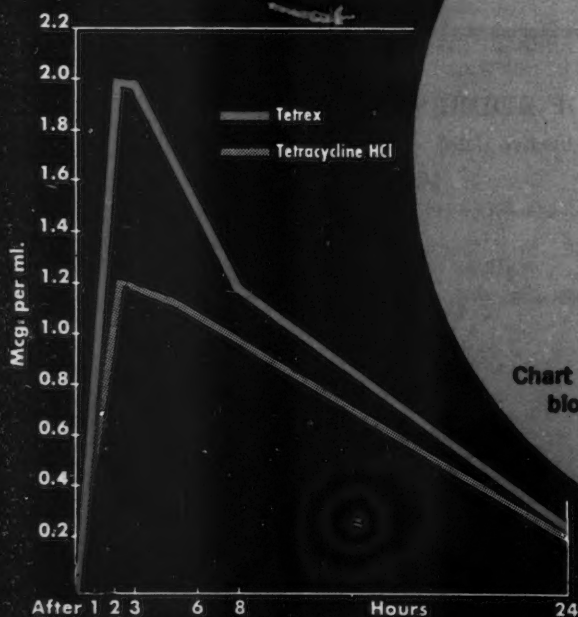
A National Advisory Committee on Radiation, under the chairmanship of Dr. Russell H. Morgan, professor of radiology at Johns Hopkins University School of Medicine, has also been appointed and held its first meeting on March 13.

For the past decade, the Public Health Service has been working on radiological health problems. Its current activities include the development of public health measures for reducing exposure from x-rays, industrial waste, and other radiation sources and including several specialized areas of research supporting this effort; training programs for State and local health department personnel; monitoring of weapons testing; and surveillance of radiation levels in air, water, milk and food.

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TETRACYCLINE

Association is sponsoring an all-inclusive tour to Israel for the 4th World Medical Assembly of the Israel Medical Assn., to be held in Tel Aviv, Haifa, Jerusalem—August 12-24, 1958. Tour group will depart from New York via El Al Israel Airlines on August 9, and will leave Israel on August 24. For further details, contact the national office at: 1330 Beacon Street, Brookline 46, Mass.

PHARMACY AND OPTOMETRY ON PREPAYMENT

The T.C.M.P. Newsletter of April 1958 notes that two medical ancillary services, pharmacy and optometry, may be offered on prepayment plans in future. Pharmacists of Windsor, Ontario, have actually started (on March 1 of this year) the first known prepayment plan for drugs in Canada. Known as "Prescription Services Incorporated", the service is based on the same constitutional pattern as Windsor Medical Services and is sponsored and underwritten by

Windsor pharmacists. The plan is available to groups of five or more with initial rates as follows: single subscriber, 95 cents; subscriber and wife, \$1.90; subscriber, wife and one child, \$2.55; etc.

The Canadian Association of Optometrists has recently taken out a Federal Charter to enable the marketing of their services in the same way as other allied health groups. It is understood that prepayment programs will be developed in various provinces to be offered to groups in conjunction with other health benefits; benefits will include not only refractions, but also the provision of glasses.

PHYSIOLOGICAL BASIS OF ELECTROCARDIOGRAPHY

A new course on "The Physiological Basis of Clinical Electrocardiography" is offered by the New York University Post-Graduate Medical School during the week of June 2 through 6. It is designed for physicians interested in the fundamentals of interpretation of clinical electrocardio-

grams. The following subjects will be emphasized: elements of electrical theory imperative for communication of ideas, discrepancies between theory and practice, normal variations (a neglected aspect) easily misinterpreted as having pathological significance, intracardiac leads, non-specific changes, etc. Clinical problems will be presented. Tuition: \$75. For further information, write: The Associate Dean, N.Y.U. Post-Graduate Medical School, 550 First Avenue, New York 16, N.Y.

INTERNATIONAL CONGRESS FOR CHILD PSYCHIATRY

The IVth International Congress for Child Psychiatry will be held in Lisbon, under the auspices of the Portuguese Government, from June 15 to 20. Further information from: Prof. Dr. Vitor Foutes, President, IVth International Congress for Child Psychiatry, Instituto A. A. da Costa Ferreira, Travessa Terras de Santana, 15, Lisbon, Portugal.

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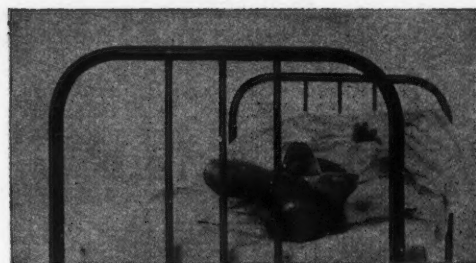


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'LERITINE' is the **FIRST NEW** potent synthetic narcotic analgesic to be developed in more than a decade. 'LERITINE' is a compound with greatly enhanced analgesic potency whether expressed in terms of potency on a weight basis or in terms of ability to alleviate more intense pain. The pain-relieving capacity of 'LERITINE' is about $2\frac{1}{2}$ times greater than that of meperidine and it approaches that of morphine. It does, however, have the great advantage over morphine of producing fewer and milder side effects. As an added factor of safety, if any respiratory depression is encountered it may be promptly reversed with 'NALLINE'.

'LERITINE' is indicated for the relief of pain and associated symptoms in: extensive burns . fractures . carcinoma . angina pectoris . renal colic . biliary colic . infection . dental procedures . surgery.

In surgical procedures 'LERITINE' is a superior agent both pre-operatively and post-operatively to relieve pain and to dispel apprehension. In obstetrics 'LERITINE' has provided good obstetric analgesia either *alone* or with scopolamine or barbiturates.



'LERITINE' is supplied in two convenient forms:
 Tablets 'LERITINE' (Anileridine) present as the dihydrochloride, 25 mg. each; bottles of 100 and 500.
 Injection 'LERITINE' (Anileridine) present as the phosphate, 25 mg./cc.; vials of 1 cc., 2 cc., in boxes of 25 vials, and in 30 cc. vials.

'LERITINE' is a trade-mark of Merck & Co. Limited

**Merck Sharp & Dohme**

Division of Merck & Co. Limited
 Montreal 30, Que.